

# **Phonetic and Orthographic Computer Analysis (POCA)**



## **Installation Guide**

**Version 1.4  
September 29, 2014**

## Notice

The FDA is unable to provide technical support for this software and does not plan to release future versions. If you have any comments on this software please email [pocasourcecoderequest@fda.hhs.gov](mailto:pocasourcecoderequest@fda.hhs.gov).

Table of Contents

NOTICE ..... 1

1. SYSTEM REQUIREMENTS..... 5

2. DEPLOYMENT OPTION #1 – TWO-TIER CONFIGURATION ON A COMPANY INTRANET WITH A MAIL SERVER  
ALREADY CONFIGURED. .... 6

2.1 IMPORT POCA SCHEMA .....7

2.2 DATA LOAD SETUP .....7

2.3 EMAIL SETTINGS .....8

3. DEPLOYMENT OPTION #2 – DEPLOYING THE DATABASE AND APPLICATION ON ONE SERVER OR PC.....15

3.1 CREATING POCA DIRECTORIES .....15

3.2 CREATING POCA DATABASE ON A WINDOWS PC OR SERVER .....15

3.3 CREATE THE POCA DATABASE USER AND ROLES.....36

3.4 IMPORT POCA DATABASE .....39

3.5 DATA LOAD SETUP .....42

4. INSTALLING THE APPLICATION .....43

4.1 INSTALLATION IN WINDOWS 2003 .....44

4.2 INSTALLATION IN WINDOWS 7/ WINDOWS 8 .....53

4.3 TEST YOUR INSTALLATION .....59

5. ADDITIONAL NOTES: .....62

Figure 1: create_poca.sql.....	6
Figure 2: DEMO_MAIL Package .....	9
Figure 3: DATA_ACCESS_LOAD.sql .....	10
Figure 4: DATA_ACCESS_LOAD.sql .....	11
Figure 5: DATA_ACCESS_REFRESH.sql .....	12
Figure 6: DATA_ACCESS_REFRESH.sql .....	13
Figure 7: Oracle Universal Installer.....	16
Figure 8: Installing database-Step 1.....	17
Figure 9: Installing database-Step 1.....	18
Figure 10: Installing database-Step 2.....	19
Figure 11: Installing database-Step 3.....	20
Figure 12: Installing database-Step 4.....	21
Figure 13: Installing database-Step 5.....	22
Figure 14: Installing database-Step 6.....	23
Figure 15: Installing database-Step 7.....	24
Figure 16: Installing database-Step 8.....	25
Figure 17: Installing database-Step 8.2 .....	26
Figure 18: Installing database-Step 8.3 .....	26
Figure 19: Installing database-Step 8.3 .....	27
Figure 20: Installing database-Step 8.4 .....	28
Figure 21: Installing database-Step 9.....	29
Figure 22: Open Net Configuration Assistant in Windows 7 .....	30
Figure 23: : Open Net Configuration Assistant in Windows 8 .....	30
Figure 24: Welcome Screen .....	31
Figure 25: Net Service Name Configuration Screen .....	31
Figure 26: Net Service Name Configuration Screen - Service Name .....	32
Figure 27: Net Service Name Configuration Screen - Select Protocols .....	32
Figure 28: Net Service Name Configuration Screen - Select TCP/IP .....	33
Figure 29: Net Service Name Configuration Screen - Test.....	33
Figure 30: Net Service Name Configuration Screen - NSN .....	34
Figure 31: Net Service Name Configuration Screen - NSN .....	34
Figure 32: Net Service Name Configuration Screen - Done.....	35
Figure 33: Welcome.....	35
Figure 34: create_POCA.sql .....	36
Figure 35: Open SQL*Plus in Windows 7 .....	37
Figure 36: Open SQL*Plus in Windows 8 .....	37
Figure 37: SQL Plus Editor.....	38
Figure 38: SQL Plus Editor as connected with sys.....	38
Figure 39: cr_POCA.log .....	39
Figure 40: SQL Plus Editor .....	39
Figure 41: imp_poca.log .....	41
Figure 42: .NET Framework verify .....	43
Figure 43: Start IIS.....	44
Figure 44: IIS Manager .....	45
Figure 45: POCA Properties -1 .....	45
Figure 46: POCA Properties -2 .....	46

Figure 47: POCA Properties -3 ..... 46

Figure 48: POCA Properties -4 ..... 47

Figure 49: Error Log Folder ..... 47

Figure 50: Error Log Properties..... 48

Figure 51: Authentication Methods..... 49

Figure 52: POCA Properties -5 ..... 50

Figure 53: ASP.NET Configuration Settings..... 51

Figure 54: IIS Manager Browse ..... 52

Figure 55: Open IIS Manager in Windows 8 ..... 53

Figure 56: IIS Manager ..... 53

Figure 57: Add Website ..... 54

Figure 58: Advanced Settings ..... 55

Figure 59: Check .NET Framework version in windows 7 ..... 56

Figure 60: Check .Net Framework version in Windows 8..... 56

Figure 61: Sample Host File ..... 57

Figure 62: Web.config -1..... 58

Figure 63: Web.config - 2..... 58

Figure 64: Search Criteria ..... 59

Figure 65: Search Results ..... 60

# 1. System Requirements

There are two options available for deploying the database and the application for POCA in Public Release.

## Option #1 (Two Tier System):

The database can be deployed on to one tier and the application can be deployed to the company's intranet web server (second tier). It is recommended that this deployment option should be performed by the experienced Oracle DBAs and server administrators. The database can be deployed on Windows, UNIX, or Linux Operating Systems. The recommended version of Oracle Database is 11.2.0.4. The application must be deployed on a Windows application server. The minimum requirements recommended for the Windows application server are:

- a. Windows 2003, Windows 7, Windows 8
- b. IIS 6/7/8
- c. Oracle 10g/11g Client (including ODP.Net)
- d. Microsoft .Net Framework 4.0
- e. 4 GB RAM
- f. 4 GB Disk space available
- g. Visual Studio 2010 (only needed if modification to the source code is required)

## Option #2 (Single Tier System):

The database and application can be deployed on one Windows server or PC. The minimum requirements recommended for this configuration are:

- a. Windows 2003, Windows 7, Windows 8
- b. IIS 6/7/8
- c. Oracle 11g Database R2 (11.2.0.4)
- d. Microsoft .Net Framework 4.0
- e. 4 GB RAM
- f. 20 GB Disk space available
- g. Visual Studio 2010 (only needed if modification to the source code is required)

## OPTION #1 IS BEST DEPLOYED BY EXPERIENCED DBAs AND SERVER ADMINISTRATORS.

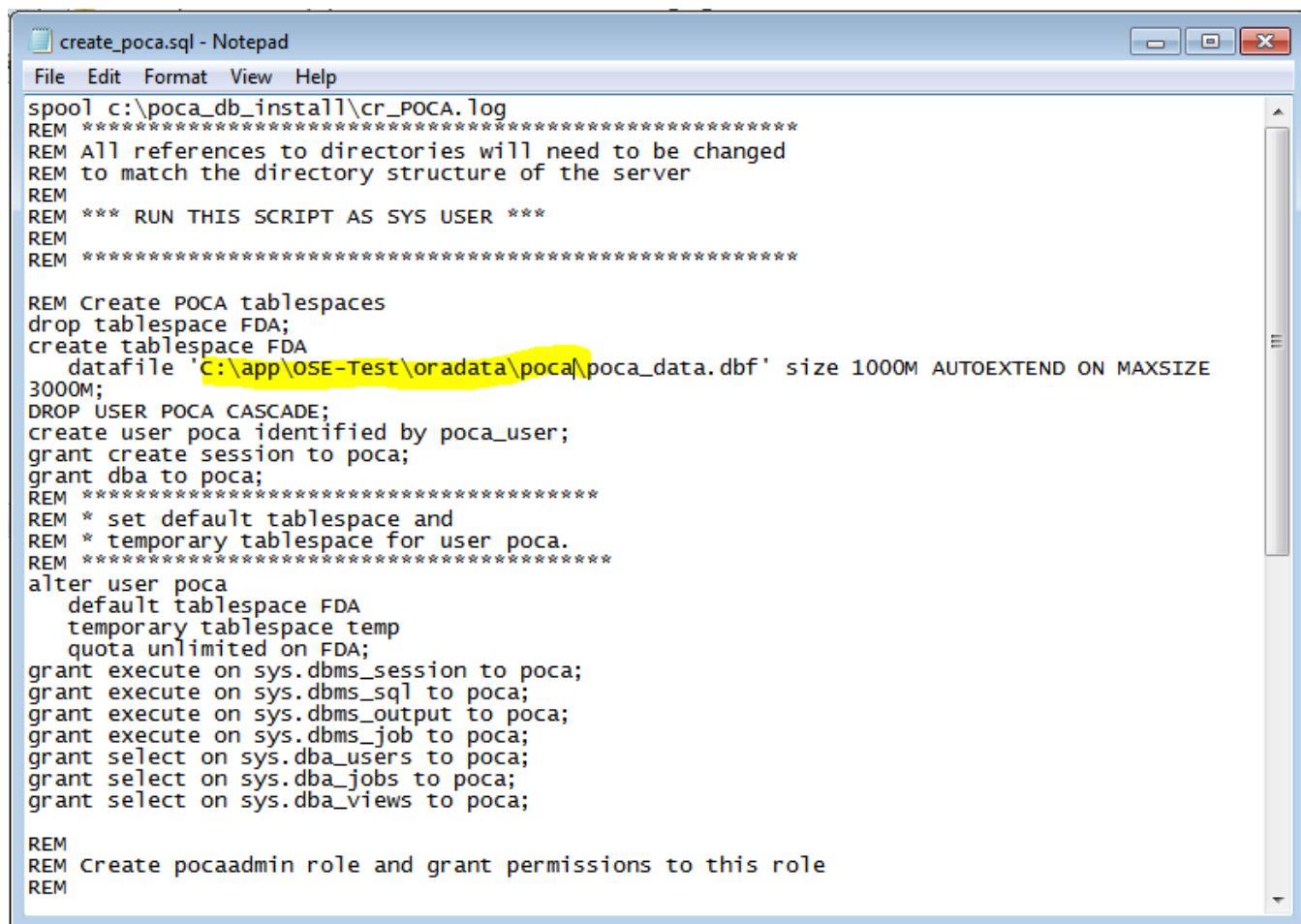
Information will be provided for both the options. However, to accommodate users not familiar with installing Oracle, some example screen prints and details will be provided for Option #2.

**Download Software from FDA internet site:** Download the zip file from the FDA internet site to your local computer (preferably in C: drive). Unzip or extract the software to your local drive. The extracted files will be used to install, configure, and setup both the database and the POCA application. The generic name of the unzipped folder is 'POCA Installation Folder'

## 2. Deployment Option #1 – Two-tier configuration on a company intranet with a mail server already configured.

This deployment option is recommended for experienced DBAs and server administrators.

1. Install Oracle 11g R2 database software on a database server or if already installed use an existing Oracle 11g R2 database.
2. Download the compressed (zip) file provided in the FDA web site and unzip the file.
3. Copy the POCA\_DB\_Install directory from the unzipped folders to the C: drive on the server or an appropriate temporary directory on a Unix/Linux server. This directory can be deleted when the installation is complete.
4. Open the script 'create\_POCA.sql' available in the directory 'POCA\_DB\_Install'. If deploying on Unix or Linux, the Windows pathnames (highlighted below) need to be changed with "/". For your reference the section 'C:\app\OSE-Test\oradata\poca\' needs to be modified based on Oracle Home, Oracle Base, Datafile location and Database configuration based on the existing system. This will be the location of data file for the POCA schema.



```

create_poca.sql - Notepad
File Edit Format View Help
spool c:\poca_db_install\cr_POCA.log
REM *****
REM All references to directories will need to be changed
REM to match the directory structure of the server
REM
REM *** RUN THIS SCRIPT AS SYS USER ***
REM
REM *****

REM Create POCA tablespaces
drop tablespace FDA;
create tablespace FDA
  datafile 'C:\app\OSE-Test\oradata\poca\poca_data.dbf' size 1000M AUTOEXTEND ON MAXSIZE
  3000M;
DROP USER POCA CASCADE;
create user poca identified by poca_user;
grant create session to poca;
grant dba to poca;
REM *****
REM * set default tablespace and
REM * temporary tablespace for user poca.
REM *****
alter user poca
  default tablespace FDA
  temporary tablespace temp
  quota unlimited on FDA;
grant execute on sys.dbms_session to poca;
grant execute on sys.dbms_sql to poca;
grant execute on sys.dbms_output to poca;
grant execute on sys.dbms_job to poca;
grant select on sys.dba_users to poca;
grant select on sys.dba_jobs to poca;
grant select on sys.dba_views to poca;

REM
REM Create pocadmin role and grant permissions to this role
REM

```

Figure 1: create\_poca.sql

5. Create POCA user by running the script create\_poca.sql. Open SQL\*PLUS and run the script.

```
SQL>@C:\poca_DB_install\create_poca.sql
```

6. If error is found in Step 5, check the log file cr\_poca.log created in the same directory C:/poca\_db\_install. If error occurs, fix the cause and run the script one more time.

## 2.1 Import POCA SCHEMA

1. Create a physical folder 'dump\_dir' in the server (e.g. in C: drive) where Oracle database is installed. Change the path names as appropriate for Unix/Linux. Place the dump file 'pocapub.dmp' from 'C:\POCA\_DB\_Install' to the dump\_dir directory.
2. Go to SQL Plus and run the following commands: (Depending on the Operating Systems like Windows, Unix or Linux interface screen will change)

```
SQL>SYS / as sysdba
```

```
SQL>CREATE OR REPLACE DIRECTORY DUMP_DIR AS 'C:\DUMP_DIR';
```

```
SQL>GRANT READ, WRITE ON DIRECTORY DUMP_DIR TO POCA;
```

3. Go to C:\POCA\_DB\_Install folder and execute by double-clicking the batch file 'import\_poca.bat'. or for Unix 'import\_poca.sh'.

OR

Execute the data pump import command as follows.

Run from the command prompt.

```
impdp poca/poca_user@poca DIRECTORY=dump_dir dumpfile='pocapub.dmp'  
logfile='imp_poca.log' schemas=POCA
```

## 2.2 Data Load Setup

1. The POCA database includes two data sources, , DrugsatFDA and RxNorm, which will upload upon installation. To upload monthly data refreshes for these data sources, follow the instructions 11 through 15 below.
2. Create a folder C:\poca\_data\_import in the server where Oracle database installed. Please change the path as appropriate to Unix/Linux.
3. Follow the steps below to create EXT\_TABLES directory in the database

Go to SQL\*Plus connecting as SYS user and run the following:

```
SYS@poca / as sysdba
```

```
SQL>CREATE OR REPLACE DIRECTORY EXT_TABLES AS 'C:\POCA_DATA_IMPORT';
```

```
SQL>GRANT READ, WRITE ON DIRECTORY EXT_TABLES TO POCA;
```



```
SQL>EXEC DBMS_JAVA.grant_permission( 'POCA', 'SYS:java.io.FilePermission',
'c:\poca_data_import\*', 'read, write, execute, delete');
```

4. a) Copy the file 'drugsatfda20140924\_New.txt' from the C:\POCA\_DB\_Install\POCA\_Datasources directory to the C:\poca\_data\_import directory.
- b) Copy the file 'rxnorm\_20140902\_New.txt' from the C:\POCA\_DB\_Install\POCA\_Datasources directory to the C:\poca\_data\_import directory.
5. Connect SQL\*Plus as the POCA user and run the following SQL update command. This is necessary for you to provide the value of the full directory path of the 'POCA\_DATA\_IMPORT'. As an example 'C:\POCA\_DATA\_IMPORT' for windows and '/POCA\_DATA\_IMPORT' for UNIX OS.

```
SQL>UPDATE POCA.USER_SETTING SET U_SETTING_VALUE = 'C:\POCA_DATA_IMPORT'
WHERE I_SETTING_ID = 4084 AND UI_USER_UID = '01';
COMMIT;
```

6. For future drugs data, FDA will provide formatted data files in the internet site. You can download data files from there and copy those into 'poca\_data\_import' directory and The format of the data file names would be as 'rxnorm\_YYYYMMDD\_New.txt' for RxNorm data file and 'drugsatfdaYYYYMMDD\_New.txt' for DrugsatFDA data file (Example for YYYYMMDD is 20141125 for Nov 25, 2014 is the down load date). After that you can load data through POCA application. Details of data load procedures are described in Help manual.

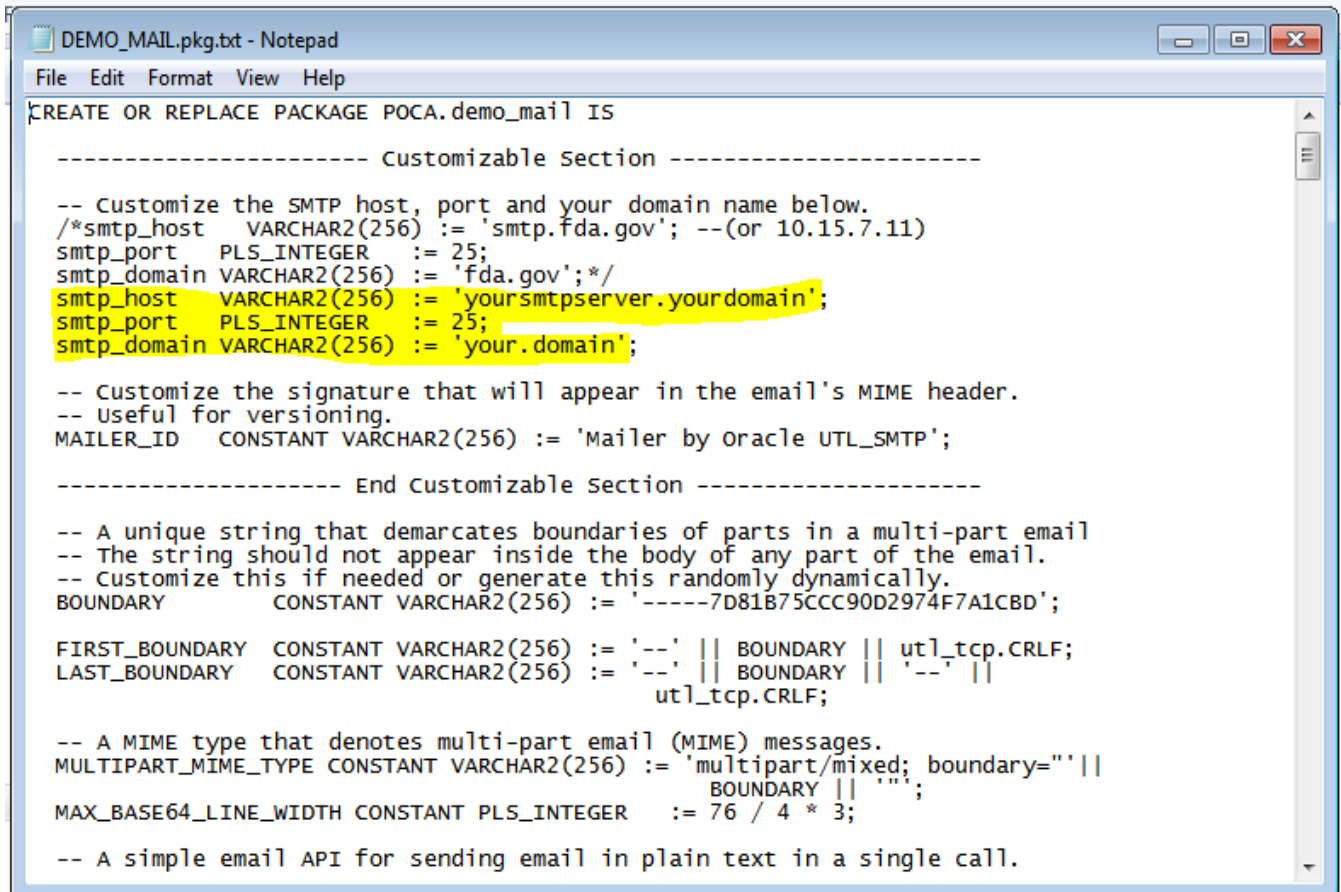
## 2.3 Email Settings

1. In order to implement the email functionalities of the POCA application to work, some email settings in the database need to be changed. It is necessary to edit and run three scripts and run one update command as follows. THIS IS REQUIRED IF YOU HAVE ANY SMTP EMAIL SERVER. If not just skip this step.
  - a. In the C:\POCA\_DB\_Install directory, open the file demo\_mail\_pkg.sql in Notepad. At the top of the file you will find a section labelled "Customizable Section" as shown below. Change the smtp\_host, smtp\_port (if necessary), and smtp\_domain to the correct values as applicable to your company's email. Save the file.

----- Customizable Section -----

```
-- Customize the SMTP host, port and your domain name below.
/*smtp_host VARCHAR2(256) := 'smtp.fda.gov'; --(or 10.15.7.11)
smtp_port PLS_INTEGER := 25;
smtp_domain VARCHAR2(256) := 'fda.gov';*/
smtp_host VARCHAR2(256) := 'yoursmtpserver.yourdomain';
smtp_port PLS_INTEGER := 25;
smtp_domain VARCHAR2(256) := 'your.domain';
```

-- Customize the signature that will appear in the email's MIME header.  
 -- Useful for versioning.  
 MAILER\_ID CONSTANT VARCHAR2(256) := 'Mailer by Oracle UTL\_SMTP';



```

CREATE OR REPLACE PACKAGE POCA.demo_mail IS

  ----- Customizable Section -----

  -- Customize the SMTP host, port and your domain name below.
  /*smtp_host  VARCHAR2(256) := 'smtp.fda.gov'; --(or 10.15.7.11)
  smtp_port    PLS_INTEGER := 25;
  smtp_domain  VARCHAR2(256) := 'fda.gov';*/
  smtp_host    VARCHAR2(256) := 'yoursmtpserver.yourdomain';
  smtp_port    PLS_INTEGER := 25;
  smtp_domain  VARCHAR2(256) := 'your.domain';

  -- Customize the signature that will appear in the email's MIME header.
  -- Useful for versioning.
  MAILER_ID    CONSTANT VARCHAR2(256) := 'Mailer by oracle UTL_SMTP';

  ----- End Customizable Section -----

  -- A unique string that demarcates boundaries of parts in a multi-part email
  -- The string should not appear inside the body of any part of the email.
  -- Customize this if needed or generate this randomly dynamically.
  BOUNDARY     CONSTANT VARCHAR2(256) := '-----7D81B75CCC90D2974F7A1CBD';

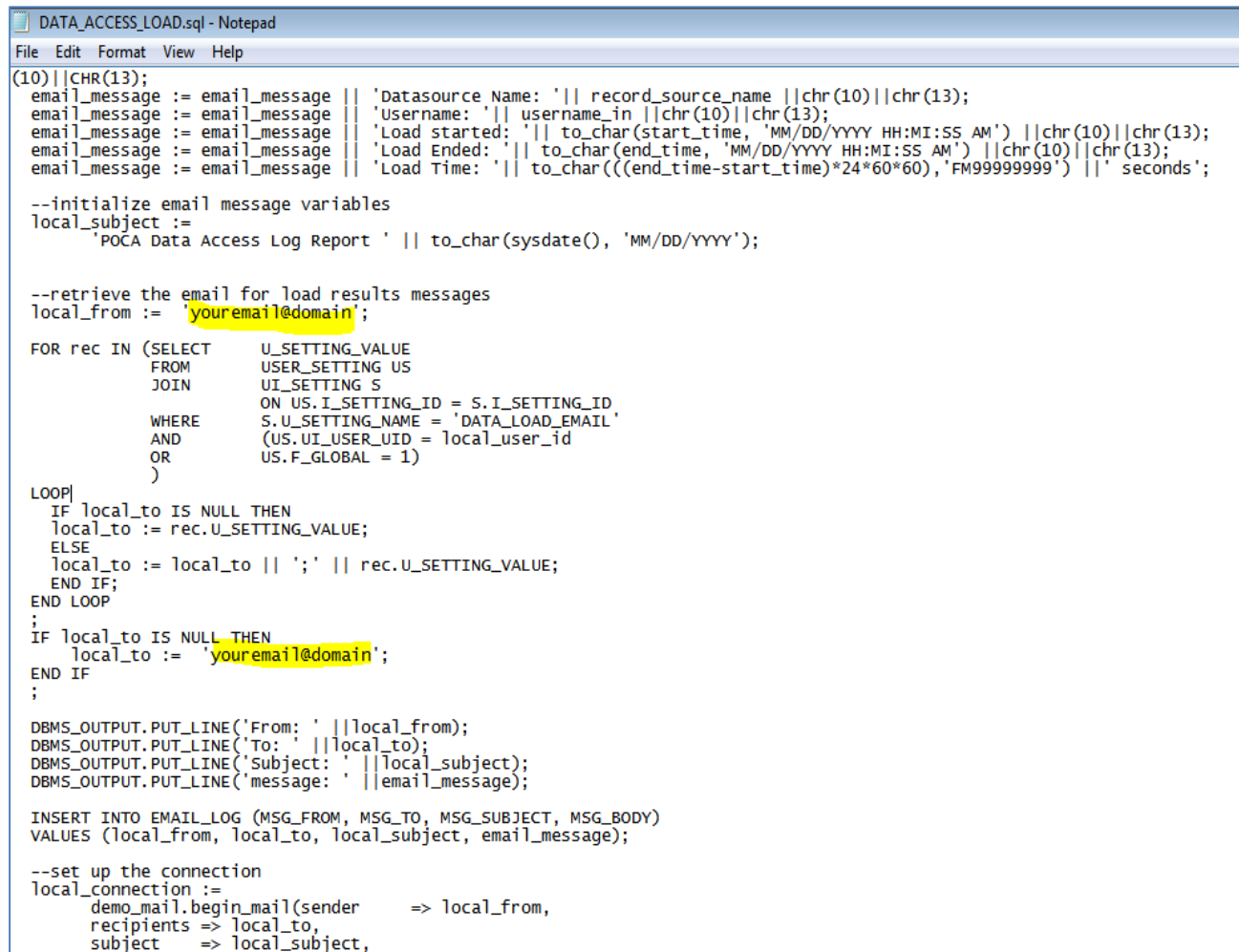
  FIRST_BOUNDARY CONSTANT VARCHAR2(256) := '--' || BOUNDARY || utl_tcp.CRLF;
  LAST_BOUNDARY  CONSTANT VARCHAR2(256) := '--' || BOUNDARY || '--' ||
                                         utl_tcp.CRLF;

  -- A MIME type that denotes multi-part email (MIME) messages.
  MULTIPART_MIME_TYPE CONSTANT VARCHAR2(256) := 'multipart/mixed; boundary="' ||
                                         BOUNDARY || '"';
  MAX_BASE64_LINE_WIDTH CONSTANT PLS_INTEGER := 76 / 4 * 3;

  -- A simple email API for sending email in plain text in a single call.
  
```

Figure 2: DEMO\_MAIL Package

- b. In the C:\POCA\_DB\_Install directory you will find DATA\_ACCESS\_LOAD.sql, open the file in a Notepad. Find the section labeled “/\* SEND EMAIL \*/.” Enter your desired email address in the single quotes where it says youremail@domain. Save the file.



```

DATA_ACCESS_LOAD.sql - Notepad
File Edit Format View Help
(10)||CHR(13);
email_message := email_message || 'Datasource Name: ' || record_source_name ||chr(10)||chr(13);
email_message := email_message || 'Username: ' || username_in ||chr(10)||chr(13);
email_message := email_message || 'Load started: ' || to_char(start_time, 'MM/DD/YYYY HH:MI:SS AM') ||chr(10)||chr(13);
email_message := email_message || 'Load Ended: ' || to_char(end_time, 'MM/DD/YYYY HH:MI:SS AM') ||chr(10)||chr(13);
email_message := email_message || 'Load Time: ' || to_char(((end_time-start_time)*24*60*60), 'FM99999999') || ' seconds';

--initialize email message variables
local_subject :=
'POCA Data Access Log Report ' || to_char(sysdate(), 'MM/DD/YYYY');

--retrieve the email for load results messages
local_from := 'youremail@domain';

FOR rec IN (SELECT      U.SETTING_VALUE
              FROM        USER_SETTING US
              JOIN         UI_SETTING S
              ON US.I_SETTING_ID = S.I_SETTING_ID
              WHERE        S.U_SETTING_NAME = 'DATA_LOAD_EMAIL'
              AND          (US.UI_USER_UID = local_user_id
              OR           US.F_GLOBAL = 1)
              )
LOOP
  IF local_to IS NULL THEN
    local_to := rec.U_SETTING_VALUE;
  ELSE
    local_to := local_to || ';' || rec.U_SETTING_VALUE;
  END IF;
END LOOP
;
IF local_to IS NULL THEN
  local_to := 'youremail@domain';
END IF
;

DBMS_OUTPUT.PUT_LINE('From: ' ||local_from);
DBMS_OUTPUT.PUT_LINE('To: ' ||local_to);
DBMS_OUTPUT.PUT_LINE('Subject: ' ||local_subject);
DBMS_OUTPUT.PUT_LINE('message: ' ||email_message);

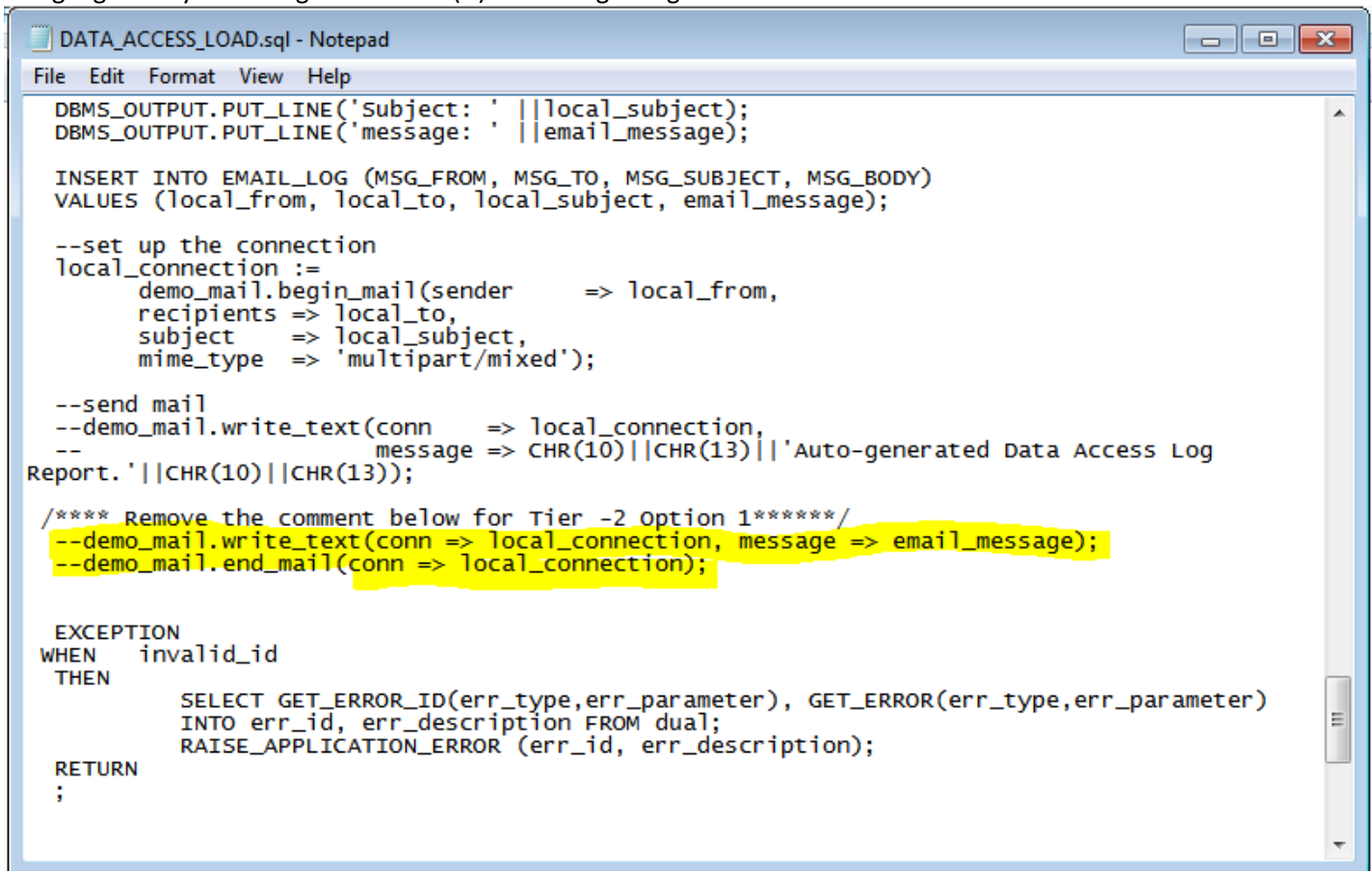
INSERT INTO EMAIL_LOG (MSG_FROM, MSG_TO, MSG_SUBJECT, MSG_BODY)
VALUES (local_from, local_to, local_subject, email_message);

--set up the connection
local_connection :=
demo_mail.begin_mail(sender      => local_from,
                     recipients => local_to,
                     subject    => local_subject,

```

Figure 3: DATA\_ACCESS\_LOAD.sql

- c. Find the section of the procedure as above where 'demo\_mail' is called and uncomment the two lines as highlighted by removing two dashes (--) at the beginning of the lines.



```
DATA_ACCESS_LOAD.sql - Notepad
File Edit Format View Help

DBMS_OUTPUT.PUT_LINE('Subject: ' || local_subject);
DBMS_OUTPUT.PUT_LINE('message: ' || email_message);

INSERT INTO EMAIL_LOG (MSG_FROM, MSG_TO, MSG_SUBJECT, MSG_BODY)
VALUES (local_from, local_to, local_subject, email_message);

--set up the connection
local_connection :=
demo_mail.begin_mail(sender => local_from,
recipients => local_to,
subject => local_subject,
mime_type => 'multipart/mixed');

--send mail
--demo_mail.write_text(conn => local_connection,
-- message => CHR(10)||CHR(13)||'Auto-generated Data Access Log
Report.' || CHR(10)||CHR(13));

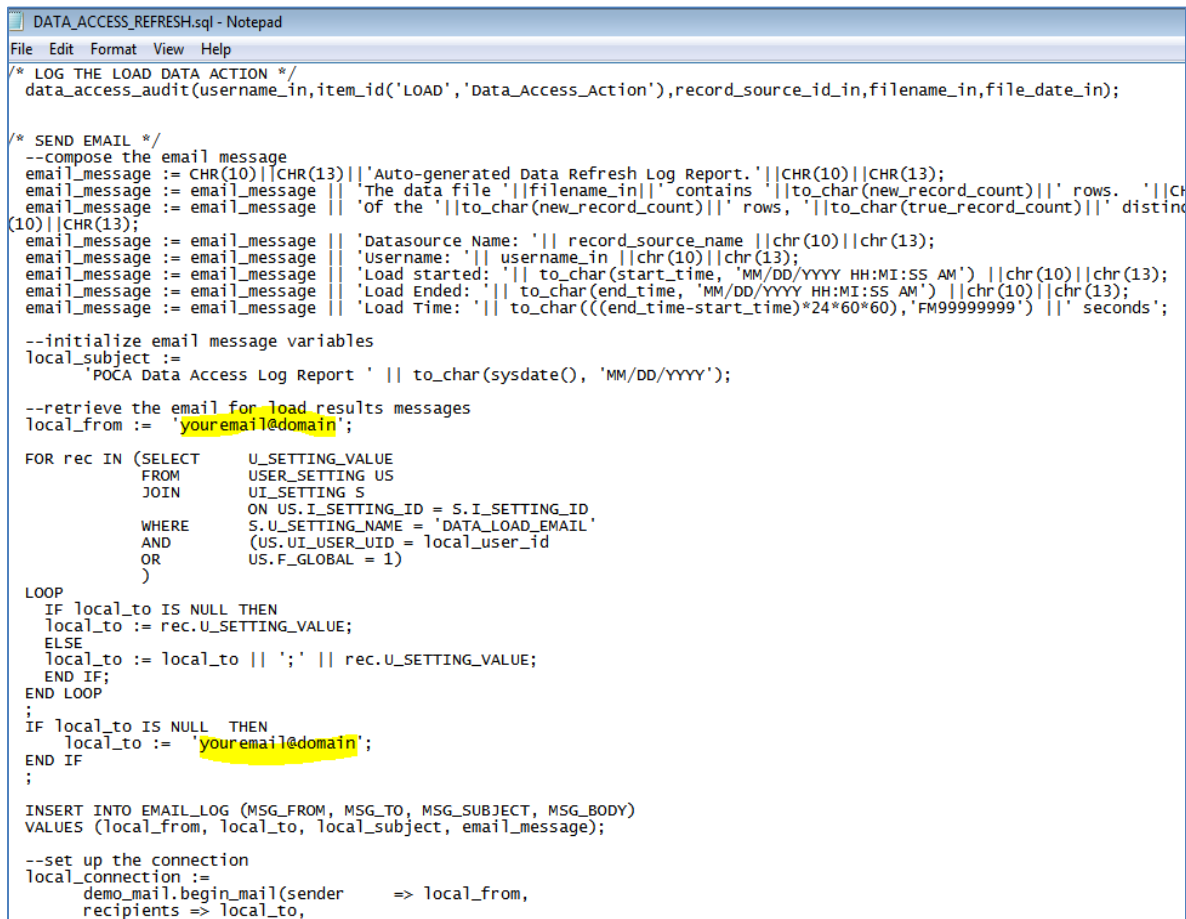
/**** Remove the comment below for Tier -2 option 1****/
--demo_mail.write_text(conn => local_connection, message => email_message);
--demo_mail.end_mail(conn => local_connection);

EXCEPTION
WHEN invalid_id
THEN
SELECT GET_ERROR_ID(err_type,err_parameter), GET_ERROR(err_type,err_parameter)
INTO err_id, err_description FROM dual;
RAISE_APPLICATION_ERROR (err_id, err_description);

RETURN
;
```

Figure 4: DATA\_ACCESS\_LOAD.sql

- d. Similarly, in the C:\POCA\_DB\_Install directory, open the file DATA\_ACCESS\_REFRESH.sql in a Notepad. Find the section labeled "/\* SEND EMAIL \*/." Enter your desired email address in the single quotes where it says youremail@domain. Already highlighted in yellow and save the file.



```

DATA_ACCESS_REFRESH.sql - Notepad
File Edit Format View Help

/* LOG THE LOAD DATA ACTION */
data_access_audit(username_in,item_id('LOAD','Data_Access_Action'),record_source_id_in,filename_in,file_date_in);

/* SEND EMAIL */
--compose the email message
email_message := CHR(10)||CHR(13)||'Auto-generated Data Refresh Log Report.'||CHR(10)||CHR(13);
email_message := email_message || 'The data file '||filename_in||' contains '||to_char(new_record_count)||' rows. '||CHR(10)||CHR(13);
email_message := email_message || 'Of the '||to_char(new_record_count)||' rows, '||to_char(true_record_count)||' distinct '||CHR(10)||CHR(13);
email_message := email_message || 'Datasource Name: '||record_source_name ||chr(10)||chr(13);
email_message := email_message || 'Username: '|| username_in ||chr(10)||chr(13);
email_message := email_message || 'Load started: '|| to_char(start_time, 'MM/DD/YYYY HH:MI:SS AM') ||chr(10)||chr(13);
email_message := email_message || 'Load Ended: '|| to_char(end_time, 'MM/DD/YYYY HH:MI:SS AM') ||chr(10)||chr(13);
email_message := email_message || 'Load Time: '|| to_char(((end_time-start_time)*24*60*60),'FM99999999') ||' seconds';

--initialize email message variables
local_subject :=
'POCA Data Access Log Report ' || to_char(sysdate(), 'MM/DD/YYYY');

--retrieve the email for load results messages
local_from := 'youremail@domain';

FOR rec IN (SELECT      U.SETTING_VALUE
                FROM      USER_SETTING US
                JOIN      UI_SETTING S
                ON US.I_SETTING_ID = S.I_SETTING_ID
                WHERE     S.U_SETTING_NAME = 'DATA_LOAD_EMAIL'
                AND       (US.UI_USER_UID = local_user_id
                OR        US.F_GLOBAL = 1)
            )
LOOP
    IF local_to IS NULL THEN
        local_to := rec.U_SETTING_VALUE;
    ELSE
        local_to := local_to || ';' || rec.U_SETTING_VALUE;
    END IF;
END LOOP
;
IF local_to IS NULL THEN
    local_to := 'youremail@domain';
END IF
;
INSERT INTO EMAIL_LOG (MSG_FROM, MSG_TO, MSG_SUBJECT, MSG_BODY)
VALUES (local_from, local_to, local_subject, email_message);

--set up the connection
local_connection :=
demo_mail.begin_mail(sender    => local_from,
                    recipients => local_to,
                    subject    => local_subject

```

Figure 5: DATA\_ACCESS\_REFRESH.sql

- e. Find the section of the procedure as above where 'demo\_mail' is called and uncomment the two lines as highlighted by removing two dashes (--)..

```

DATA_ACCESS_REFRESH.sql - Notepad
File Edit Format View Help

IF local_to IS NULL THEN
    local_to := 'youremail@domain';
END IF
;

INSERT INTO EMAIL_LOG (MSG_FROM, MSG_TO, MSG_SUBJECT, MSG_BODY)
VALUES (local_from, local_to, local_subject, email_message);

--set up the connection
local_connection :=
demo_mail.begin_mail(sender    => local_from,
recipients => local_to,
subject    => local_subject,
mime_type  => 'multipart/mixed');

--send mail
--demo_mail.write_text(conn    => local_connection,
--                        message => CHR(10)||CHR(13)||'Auto-generated Data Access Log
Report.'||CHR(10)||CHR(13));

/**** Remove the comment below for Tier -2 Option 1*****/
--demo_mail.write_text(conn => local_connection, message => email_message);
--demo_mail.end_mail(conn => local_connection);

/* DELETE THE LOAD TABLE */
FOR rec IN ( SELECT  object_name
              FROM    USER_OBJECTS
              WHERE   object_type = 'TABLE'
              AND     object_name =
record_source_table )
LOOP

```

Figure 6: DATA\_ACCESS\_REFRESH.sql

- f. Now run all the three script files in SQL\*Plus. Open SQL\*Plus and login as the user “poca” with the password “poca\_user” and run the three script files as shown below.

```
SQL> @C:\POCA_DB_Install\demo_mail_pkg.sql
```

Package created.

Package body created.

```
SQL> @C:\POCA_DB_Install\data_access_load_proc.sql
```

Procedure created.

```
SQL> @C:\POCA_DB_Install\data_access_refresh_proc.sql
```

Procedure created.

- Also, login in SQL\*Plus as the user “poca” and run the following SQL commands substituting your email address in the line “set u\_setting\_value = ‘youremail@company.domain’”. Use a valid email address to replace ‘youremail@company.domain’.

```
SQL> UPDATE user_setting
```

```
SET u_setting_value = 'youremail@company.domain'  
WHERE i_setting_id in (4060,4061,4083);
```

```
SQL> commit;
```

2. Contact the database administrator to get the ACL (Access Control List) for smtp setup. Add the ACL privilege to POCA account. This should be done by the DBA. Assumption is that the ACL name is 'smtp\_acl.xml'.

```
begin  
  DBMS_NETWORK_ACL_ADMIN.ADD_PRIVILEGE  
  ('smtp_acl.xml','POCA',TRUE,'resolve');  
  commit;  
end;  
/  
begin  
  DBMS_NETWORK_ACL_ADMIN.ADD_PRIVILEGE  
  ('smtp_acl.xml','POCA',TRUE,'connect');  
  commit;  
end;  
/
```

3. Install the Oracle Client software on the server intended to host the application. Use the Oracle Net Configuration Assistant to set up the tnsnames.ora file with an entry (as for example 'poca') for the previously established database (in step #1) and host information of the database server. For more clarifications about configuring TNS file please check deployment option #2 step #15 below and you can manually modify the TNS file as per the configuration need.  
If Oracle Client is not installed you need to install ODP .NET software at a minimum. Oracle 11g client comes with ODP.NET as default.  
There are two ways to install the ODP .NET software:
  - a. (Recommended) During installation select the installation type "Administrator". This ensures that the "Oracle Data Provider for .NET" is installed, (or)
  - b. Select the "Custom" type. If this option is chosen, "Oracle Data Provider for .NET" must be manually selected to be included in the installation.
4. Next, create the POCA application. Refer to the section 4 later in this guide for "Installing the Application".

### 3. Deployment Option #2 – Deploying the database and application on one server or PC

Here are the steps that create the database and install the application. The steps are provided for the benefit of those who are not familiar with installing Oracle software. You can go to Oracle site for detailed information and more clarifications.

To create the POCA database successfully, you need:

1. One of the Windows servers/PCs with Windows 2003, Windows 7 or 8 installed, with at least 2 GB available for the POCA database, and the following Oracle Products are already installed:  
Oracle Database 11.2.0.4
2. POCA Public release install package (downloadable from FDA web site).

The Oracle database software on the computer should be installed by a user with Administrator rights. To check user rights, go to Control Panel and click on User Accounts.

The User Accounts dialog will appear. Locate your name in the User Name column of the Users for this Computer field. Once found, check your access rights in the Group column. It should be set to Administrators.

#### 3.1 Creating POCA Directories

To create POCA directories you need to:

1. Download the zip file and extract in your local drive. Copy the folder POCA\_DB\_Install from the extracted file to the C: drive.
2. Create 'poca\_data\_import' folder in your local drive as C:\poca\_data\_import.  
Copy the file 'drugsatfda20140924\_New.txt' from the C:\POCA\_DB\_Install\POCA\_Datasources directory to the C:\poca\_data\_import directory.  
Copy the file 'rxnorm\_20140902\_New.txt' from the C:\POCA\_DB\_Install\POCA\_Datasources directory to the C:\poca\_data\_import directory.
3. Create a folder 'Dump\_dir' under C drive. Place the database dump file 'POCAPUB.dmp' from the C:\POCA\_DB\_install to C:\Dump\_dir directory.

If installing to a drive other than C:, substitute the appropriate drive letter in all of the path names mentioned in the instructions and in the scripts provided. However, to make it simple, it is advisable to install the software to C: drive.

#### 3.2 Creating POCA database on a Windows PC or Server

We assume, Oracle Database 11g software are already downloaded and available in the Local machine for Windows and the instructions are prepared accordingly to install the Oracle Database.

1. Unzip all the Download files of Oracle 11g R2 Standard or Enterprise Edition in a folder under your local drive (e.g. C drive).
2. Run the setup.exe from the extracted folder to install Oracle software and database.



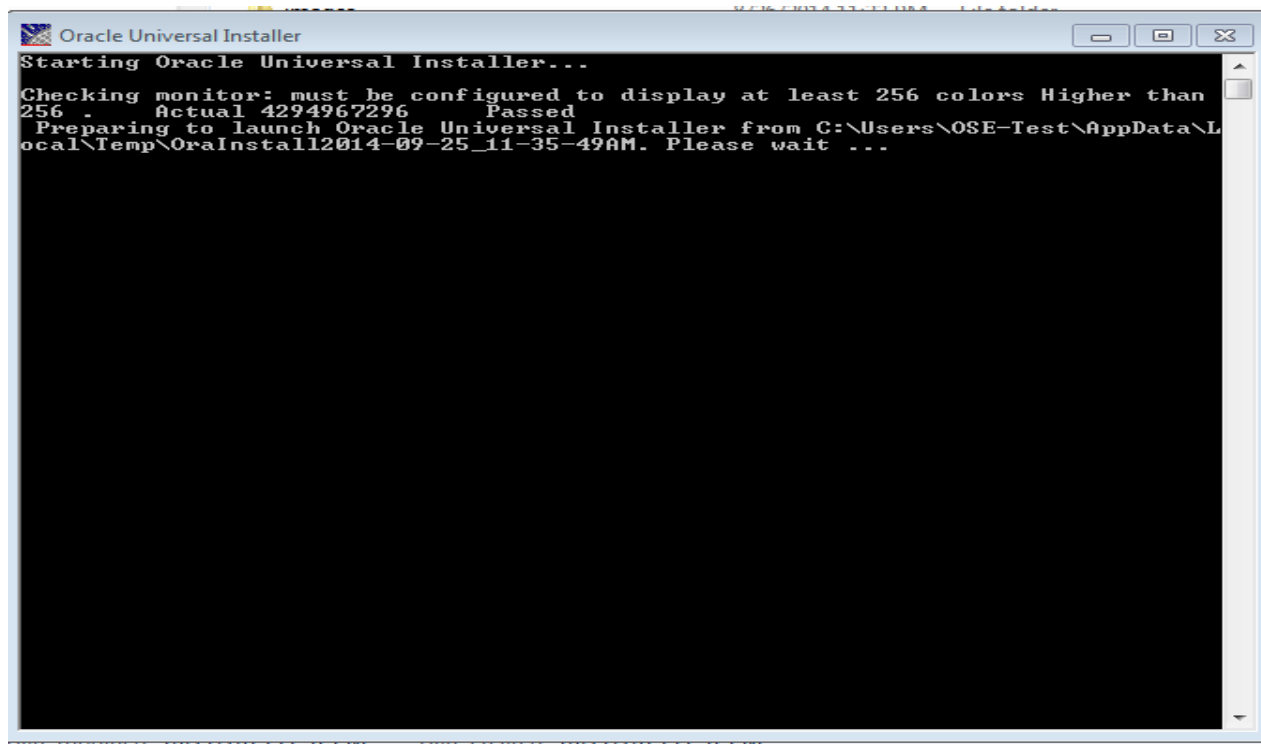


Figure 7: Oracle Universal Installer

3. After completing the initial setup it will open the following window. Enter your email address, if you want, but it is not necessary. If you do not have any oracle support account, it is recommended not to

check “I wish to receive security updates ....” and Click “Next” to continue.

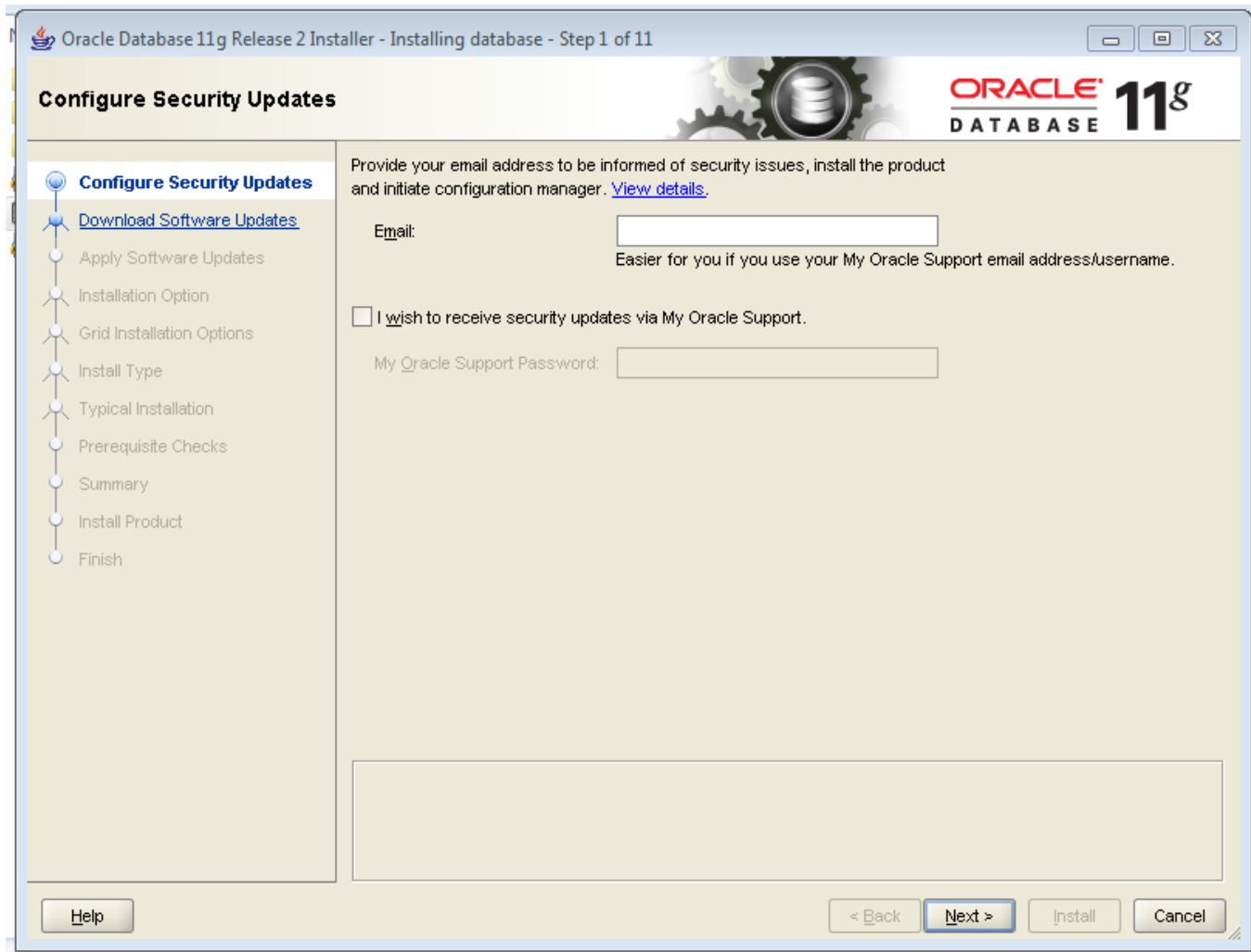


Figure 8: Installing database-Step 1

- 4. A pop-up window will appear if you do not provide your email address and click yes.

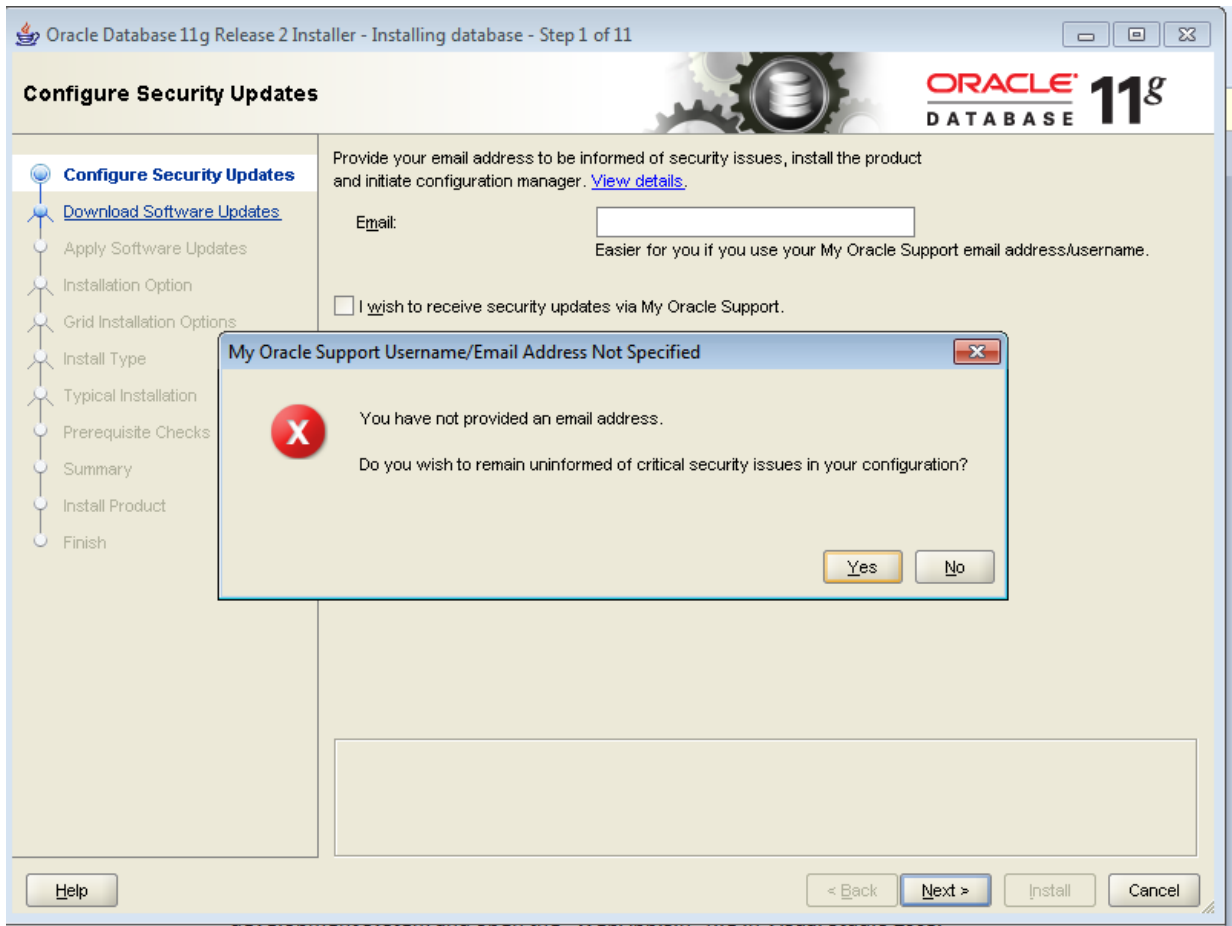


Figure 9: Installing database-Step 1

5. Select the option 'Skip software updates' if you don't have any Oracle Support credentials. Click Next to continue.

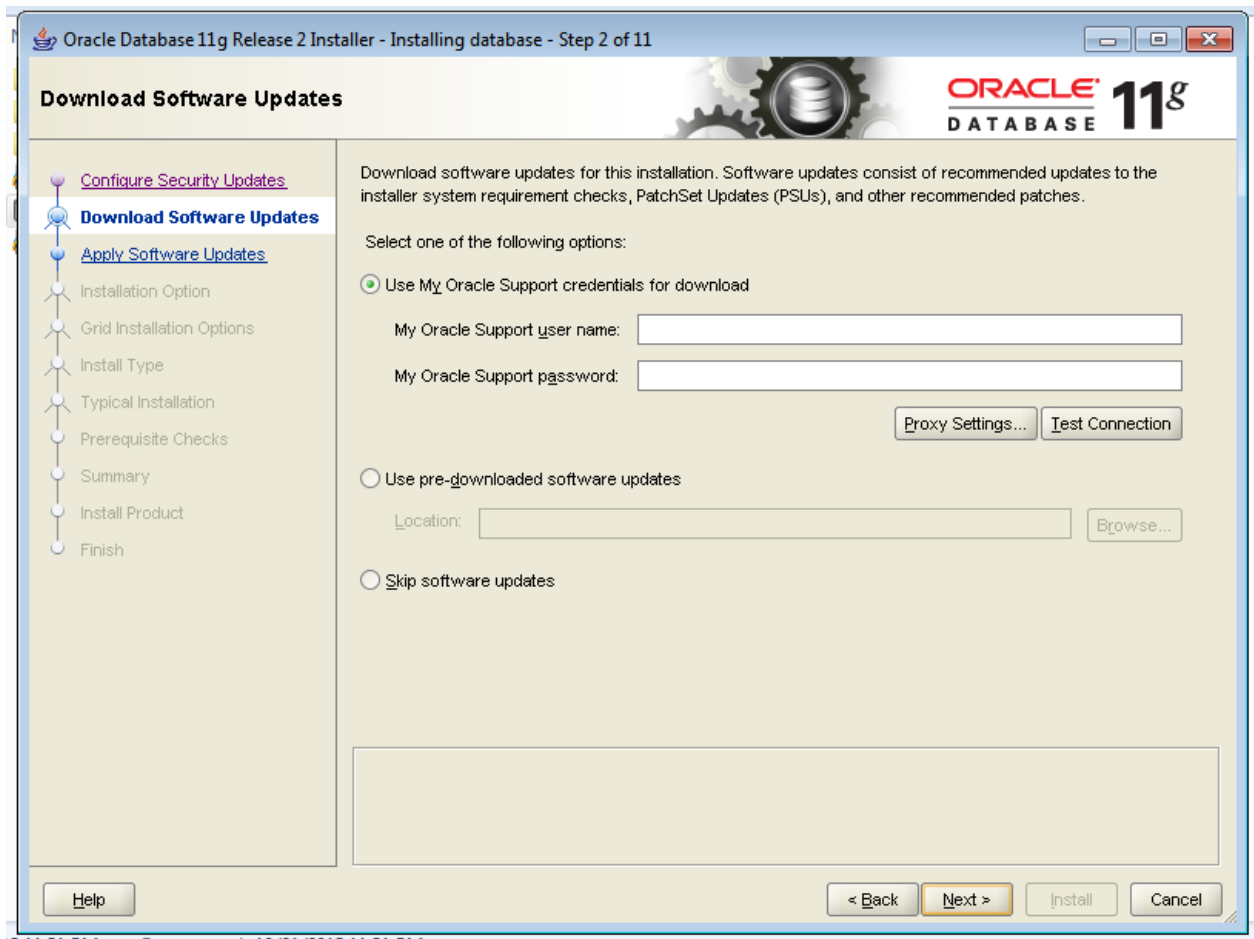


Figure 10: Installing database-Step 2

6. Check the option 'Create and configure a database. Click Next.

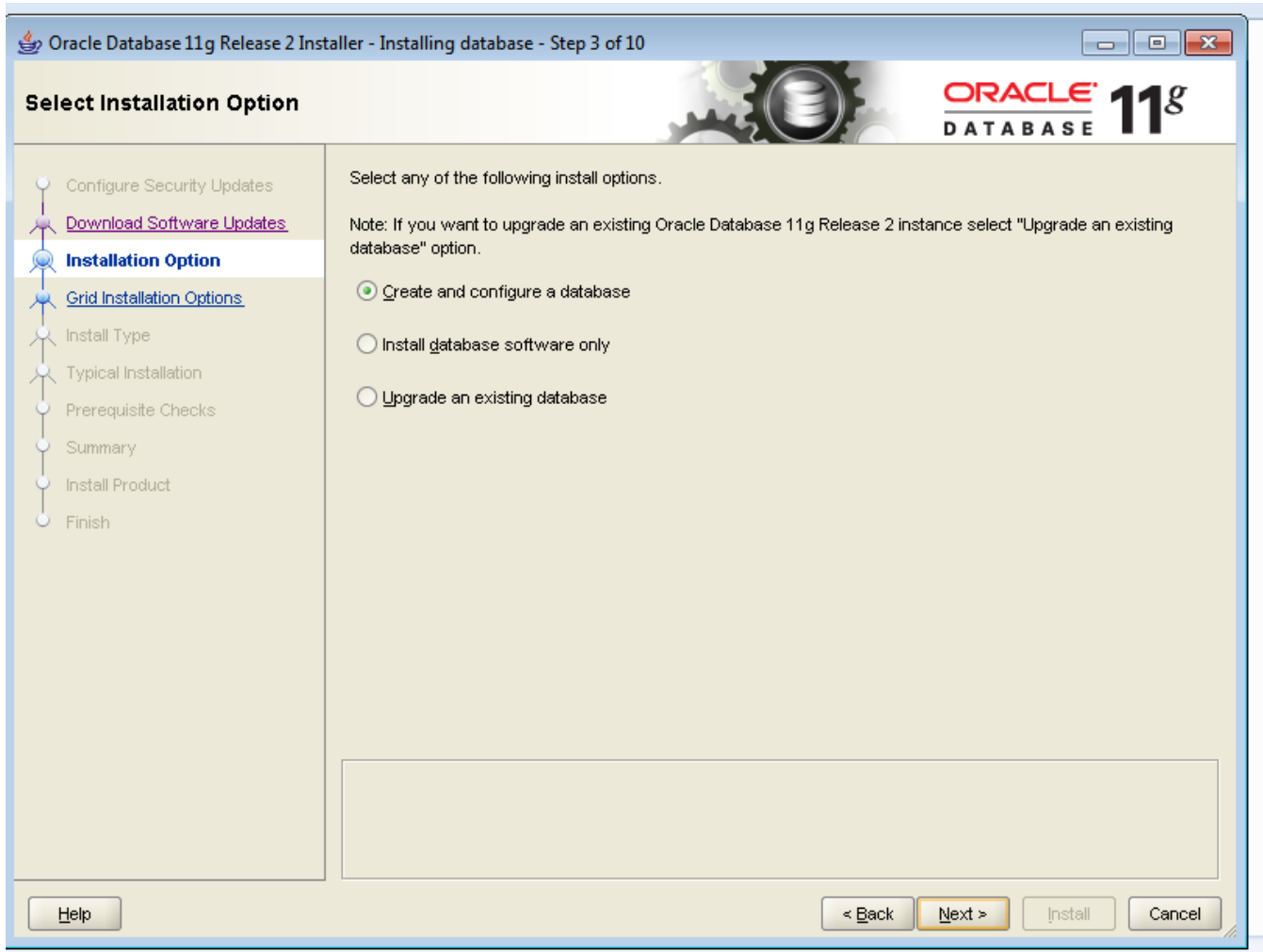


Figure 11: Installing database-Step 3

7. Select 'Desktop Class' option and click Next

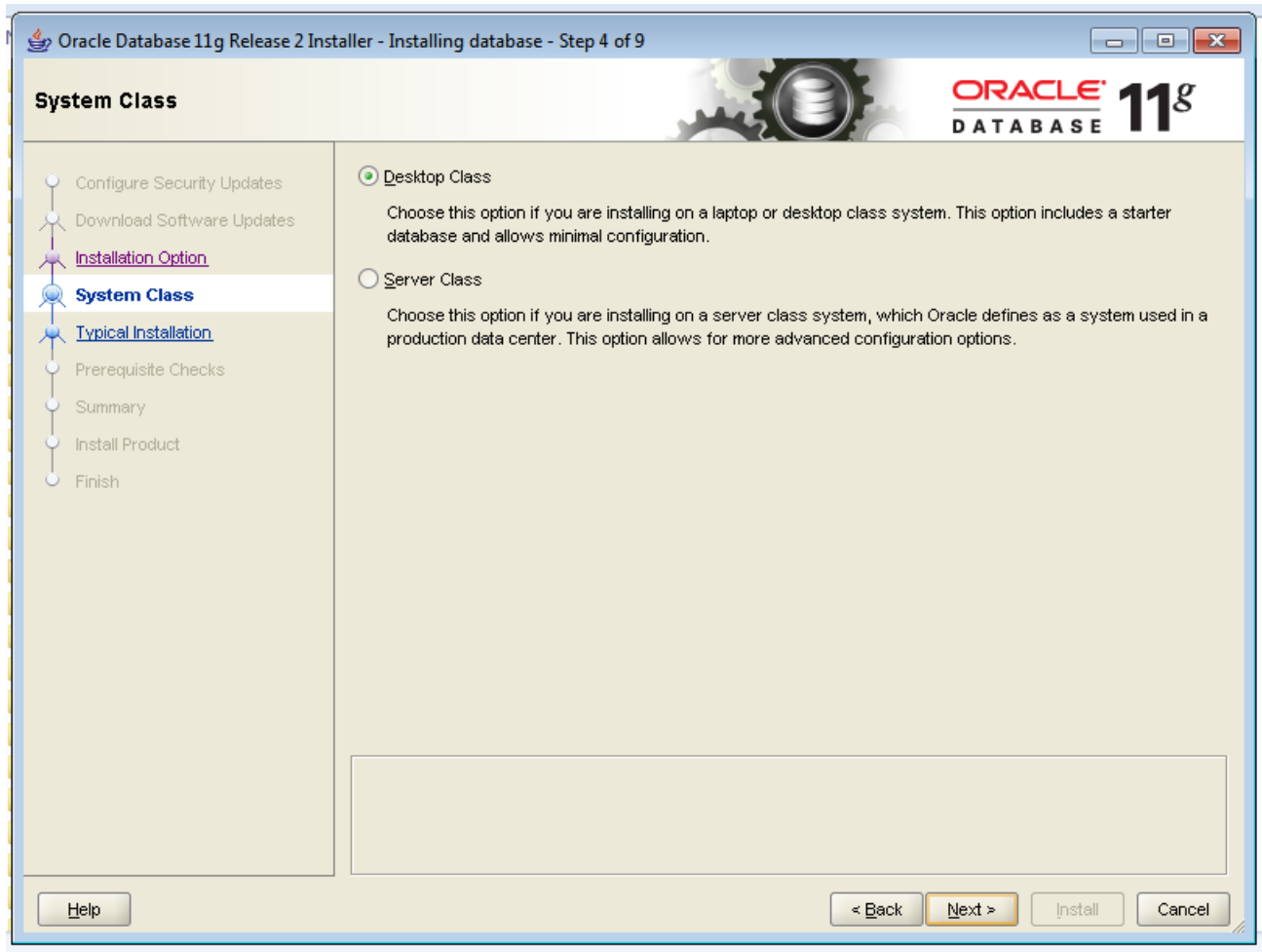


Figure 12: Installing database-Step 4

8. Step 5 of the installation is important because it determines the Oracle Home location, database, and database admin password. Whatever location comes by default, will be created automatically during installation. No need to create the folders manually. Type Global database name as 'POCA'. Create an Administrative password and confirm the same password. Please note down the password because it is required to complete all the additional steps later. Click Next to continue.

NOTE: Please take a screen-print as this information will be needed in section 3.2 *Create the POCA database user and Roles*.

Oracle Database 11g Release 2 Installer - Installing database - Step 5 of 9

**Typical Install Configuration**

Perform full Database installation with basic configuration.

Oracle base: C:\app\OSE-Test Browse

Software location: C:\app\OSE-Test\product\11.2.0\dbhome\_1 Browse

Database file location: C:\app\OSE-Test\oradata Browse

Database edition: Enterprise Edition (3.8GB)

Character Set: Default (WE8MSWIN1252)

Global database name: POCA

Administrative password: \*\*\*\*\*

Confirm Password: \*\*\*\*\*

Help < Back Next > Install Cancel

Figure 13: Installing database-Step 5

9. Step 6 will perform prerequisite checks. Once it is finished, it will move to next step.

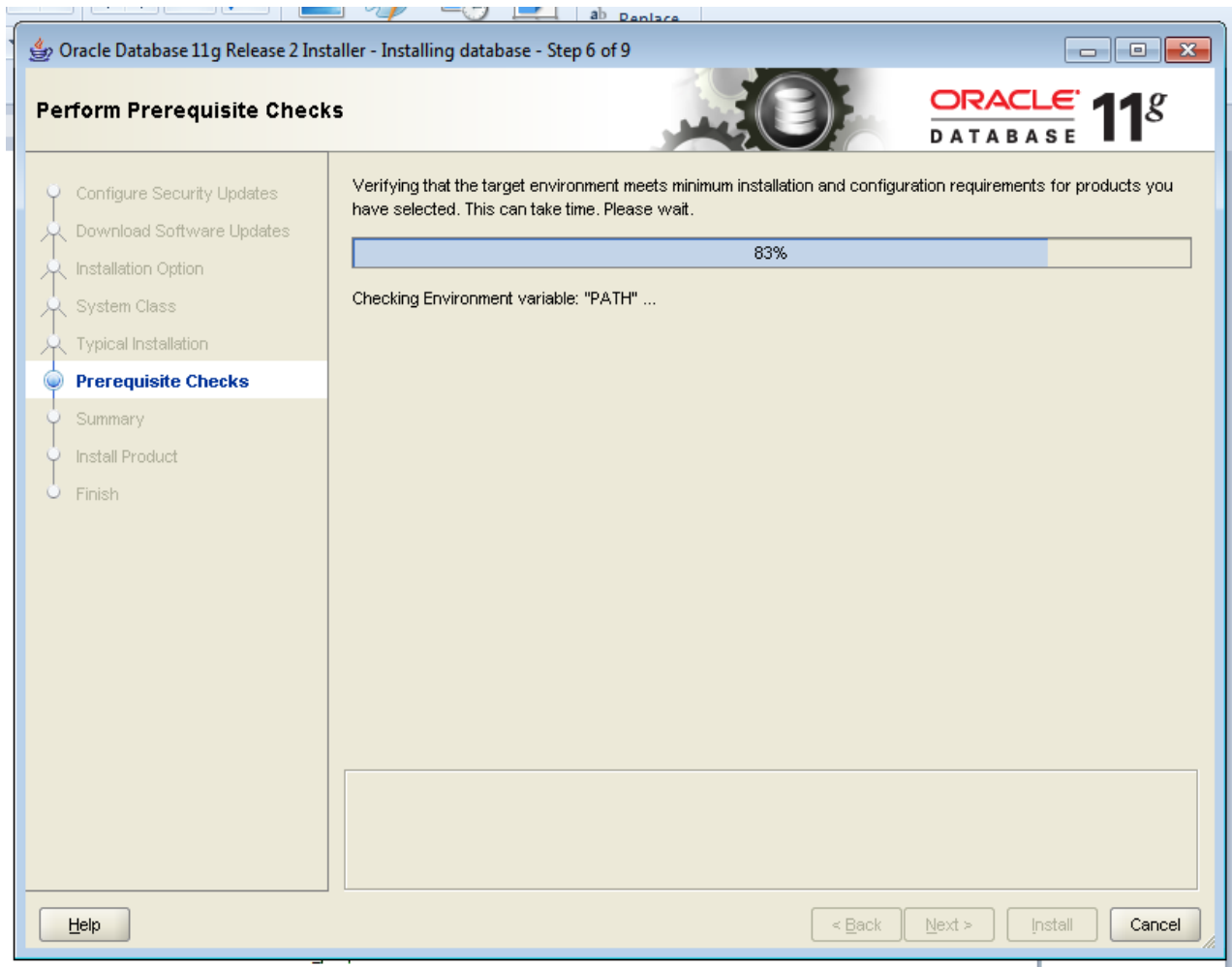


Figure 14: Installing database-Step 6



10. Click on “Install” to start installing the software.

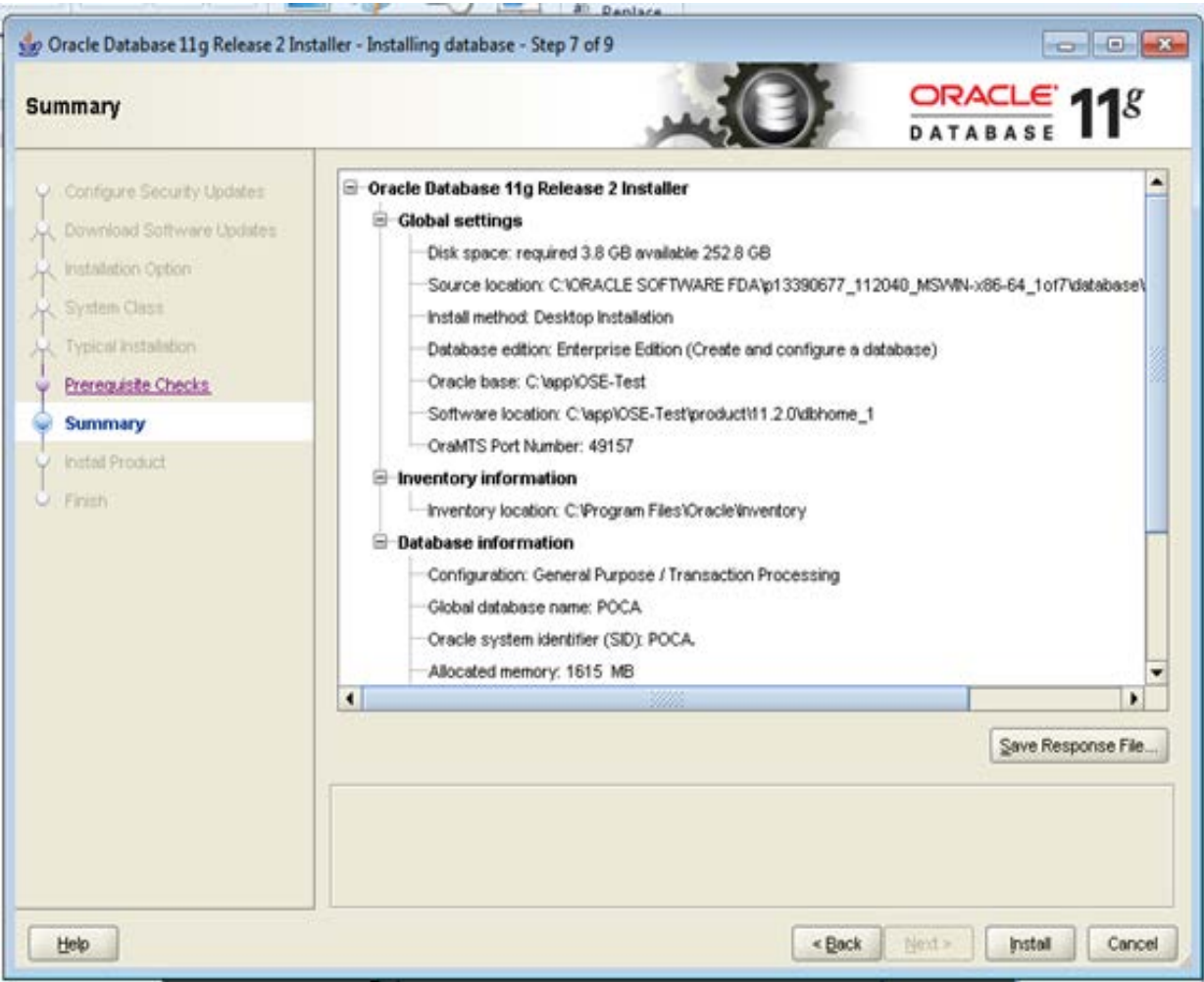


Figure 15: Installing database-Step 7

11. Step 8 will create the database, configure the database.

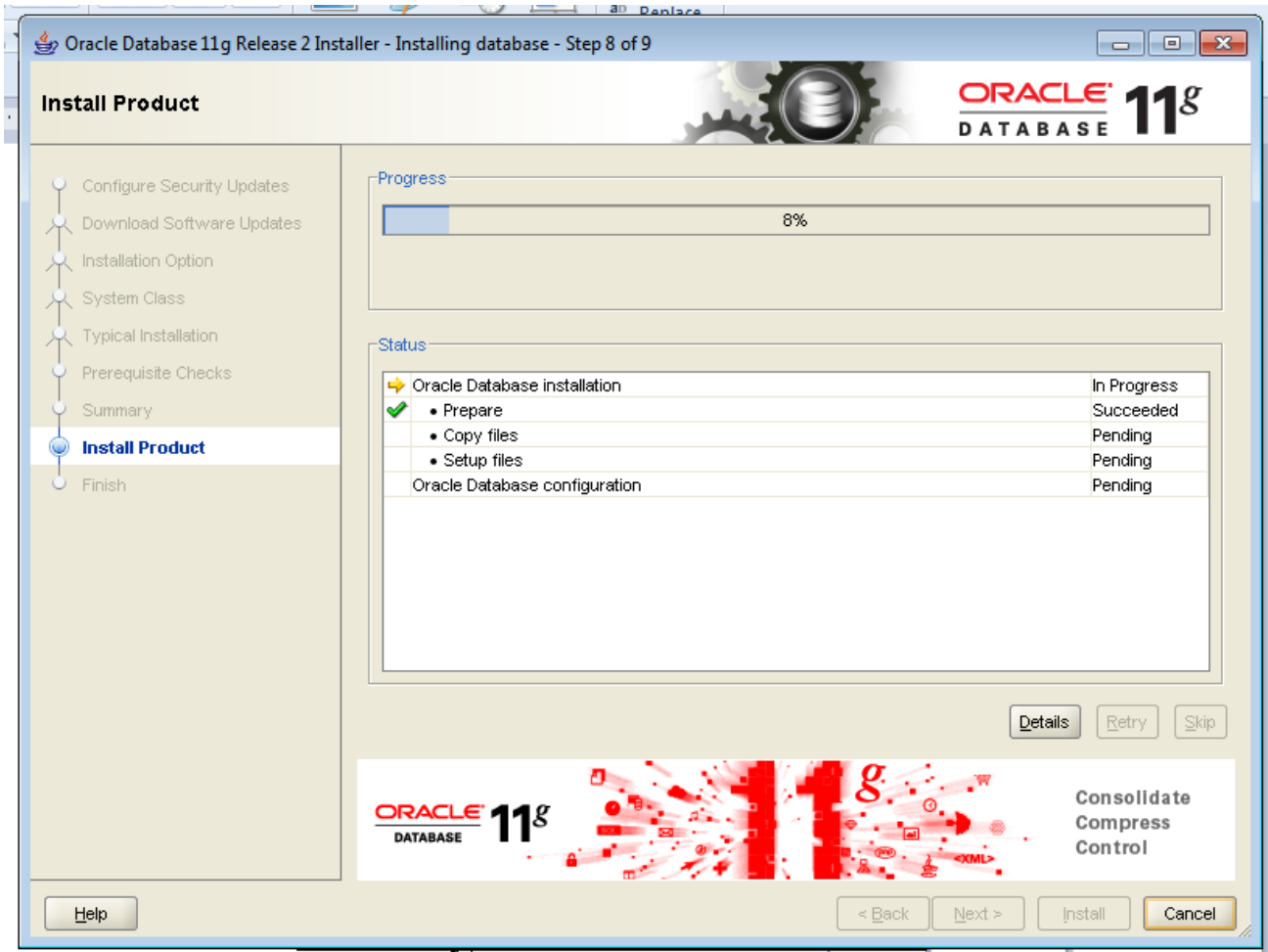


Figure 16: Installing database-Step 8

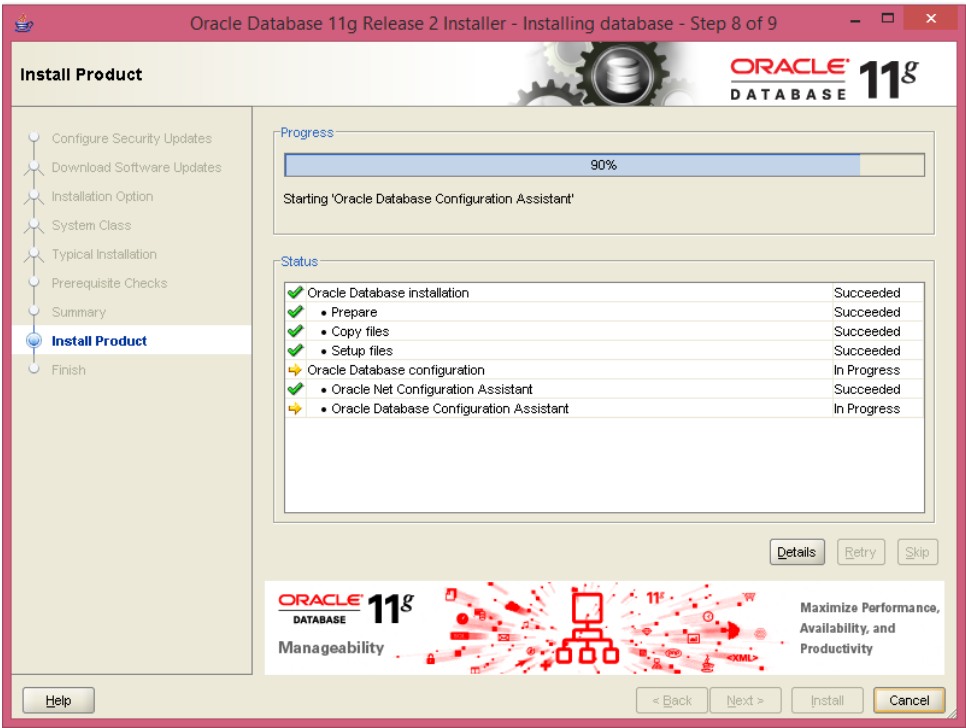


Figure 17: Installing database-Step 8.2

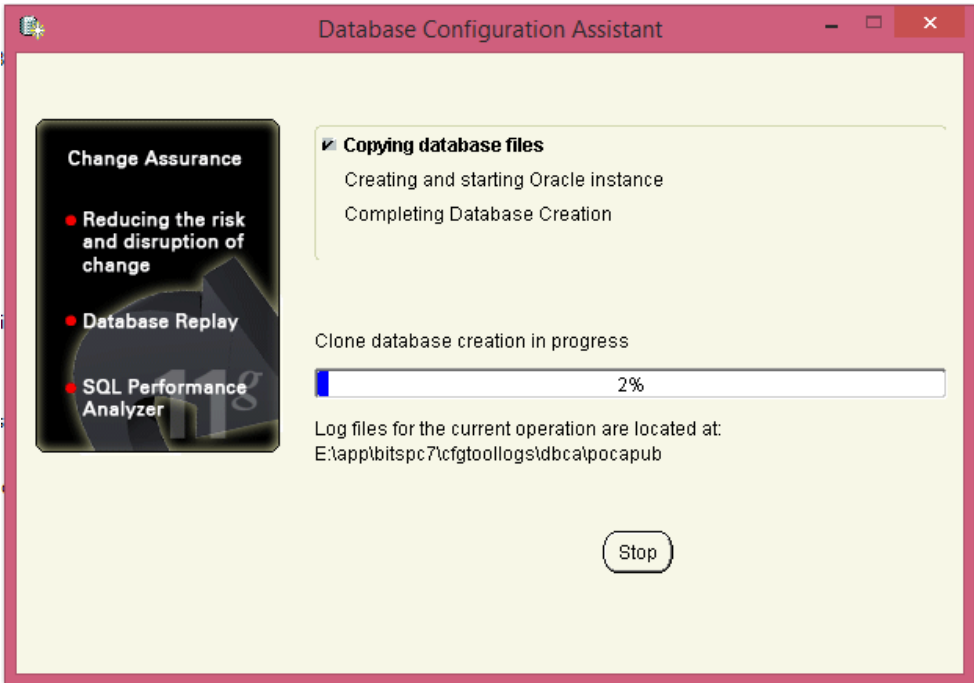


Figure 18: Installing database-Step 8.3

If you see the pop-up window like above. Click on ‘Allow access’. It will take a while to finish step8.

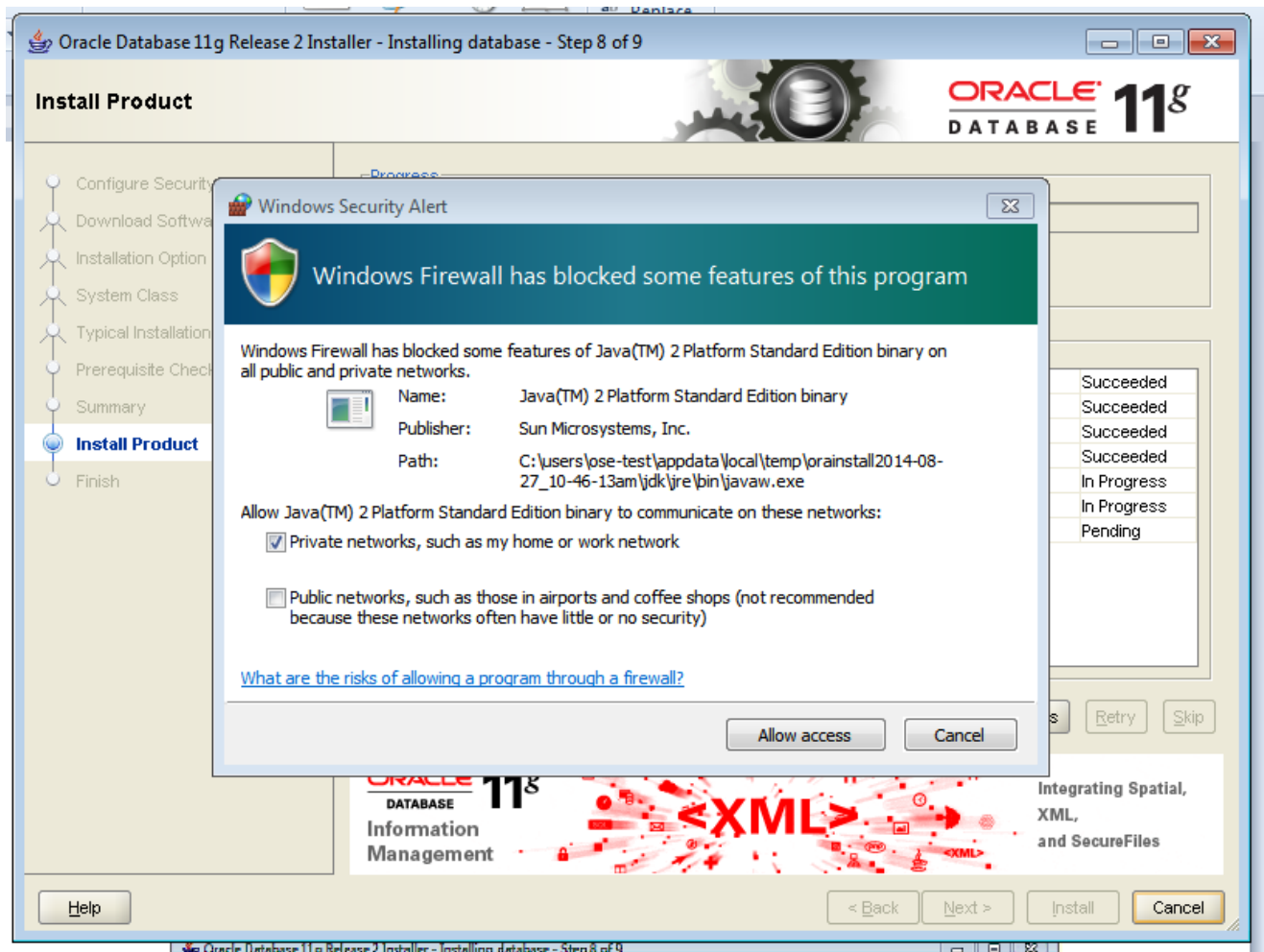


Figure 19: Installing database-Step 8.3

12. This is the summary of the database (e.g. poca) installed. Click OK.

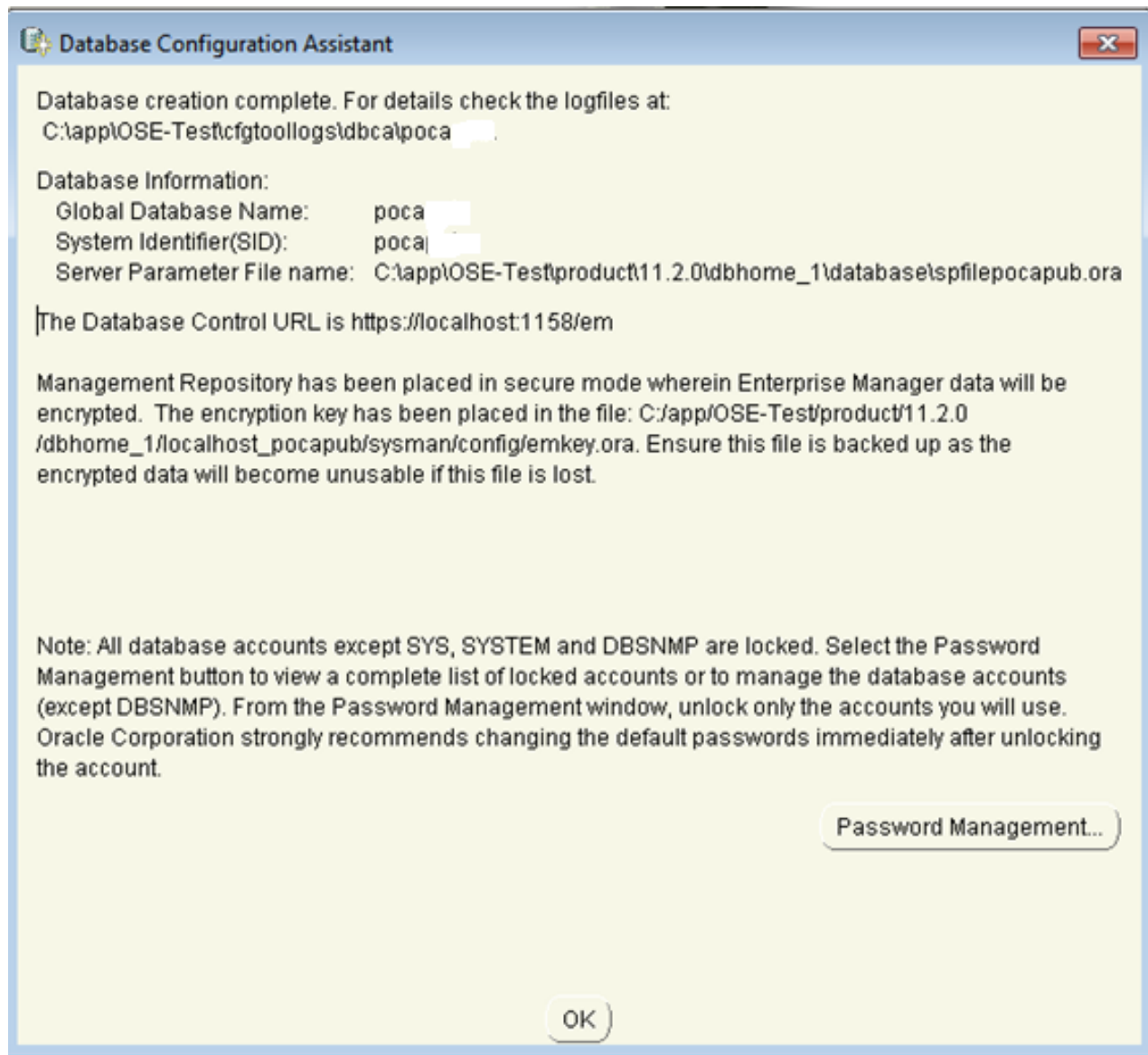


Figure 20: Installing database-Step 8.4

13. This is the final step explains the database installation is successful. It is recommended to restart the computer after successfully installation of Oracle database.

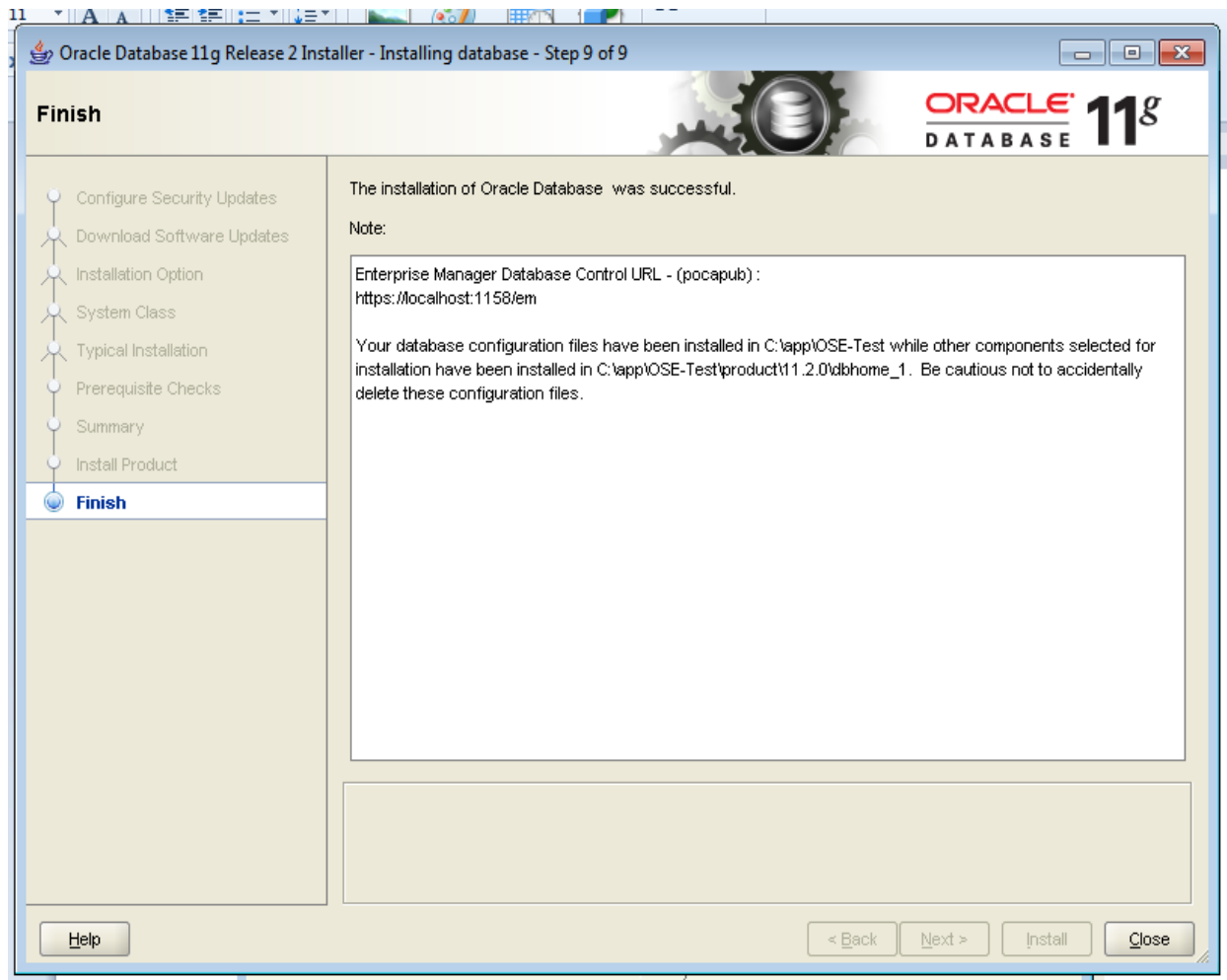


Figure 21: Installing database-Step 9

14. Create a tnsnames.ora entry for the database. **(This step is optional. if you want a new TNS entry then proceed otherwise skip this step #14 and proceed to next section)**
  - a. Run the Oracle Net Configuration Assistant if you are not already on the Welcome Screen from the previous step. Select: ( start, Oracle- OraDb11g\_home1, Configuration and Migration tools, and then select Net Configuration Assistance)

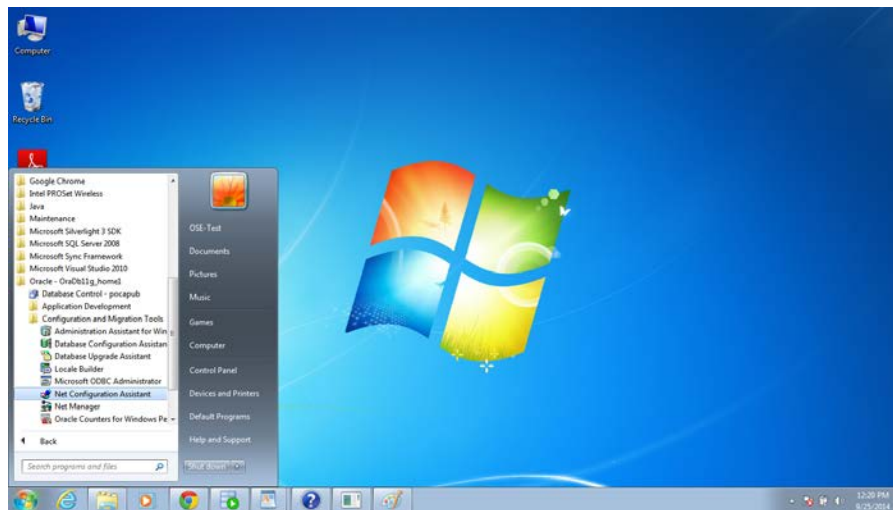


Figure 22: Open Net Configuration Assistant in Windows 7

In case of **Windows 8** The screen will look like as below

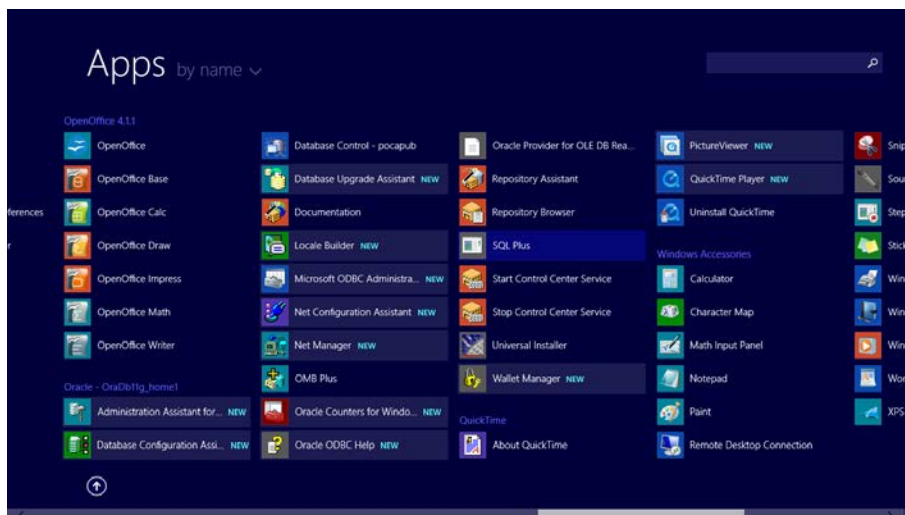


Figure 23: : Open Net Configuration Assistant in Windows 8

- b. User Account Control screen appears. Select yes to allow access to make changes to this computer: On the “Welcome” screen, choose “Local Net Service Name configuration” and click “Next.”



Figure 24: Welcome Screen

- c. On the “Net Service Name Configuration” screen, choose “Add” and click “Next.”

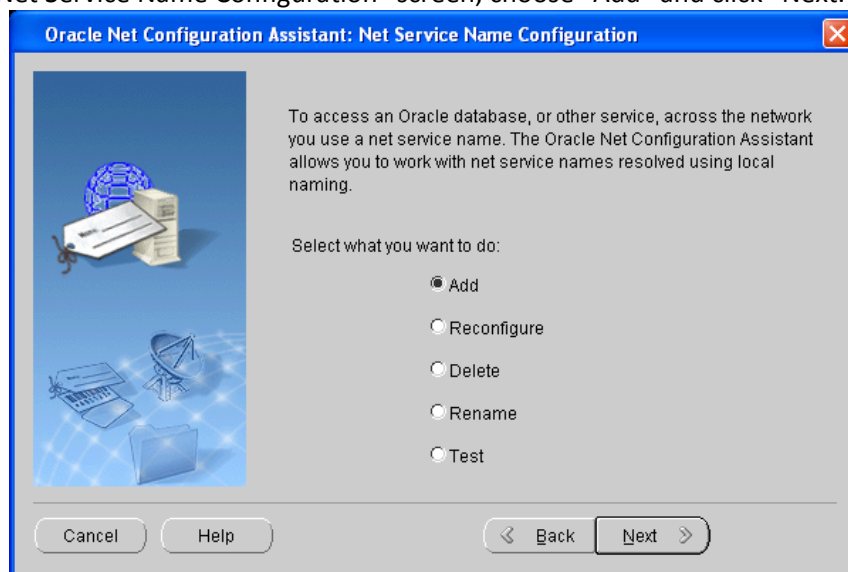


Figure 25: Net Service Name Configuration Screen



- d. On the “Net Service Name Configuration, Service Name” screen, type the Service Name “poca” and click “Next.”

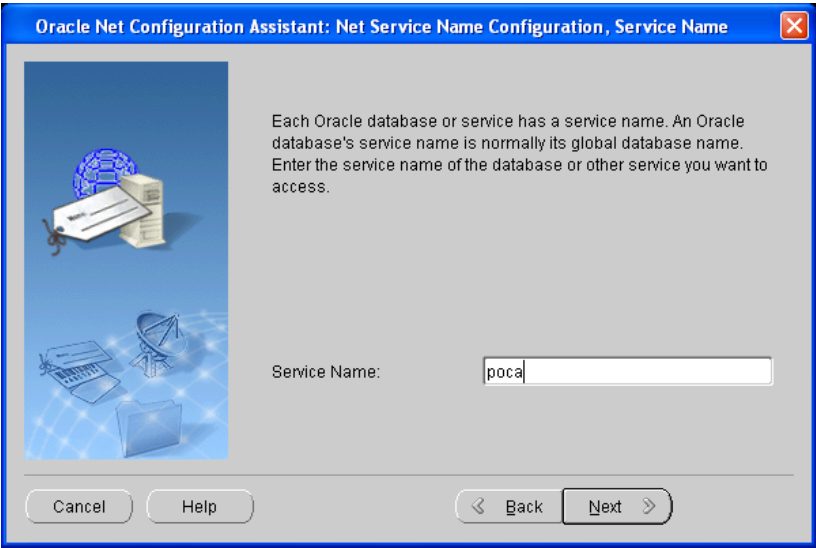


Figure 26: Net Service Name Configuration Screen - Service Name

- e. On the “Net Service Name Configuration, Select Protocols” screen, leave “TCP” selected and click “Next.”

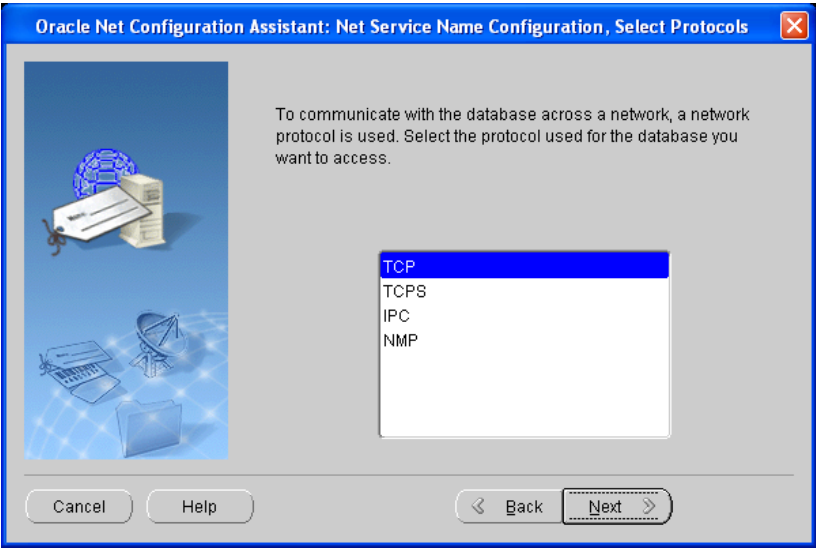


Figure 27: Net Service Name Configuration Screen - Select Protocols

- f. On the “Net Service Name Configuration, TCP/IP Protocol” screen, type “localhost” and leave the standard port selected. Click “Next.”

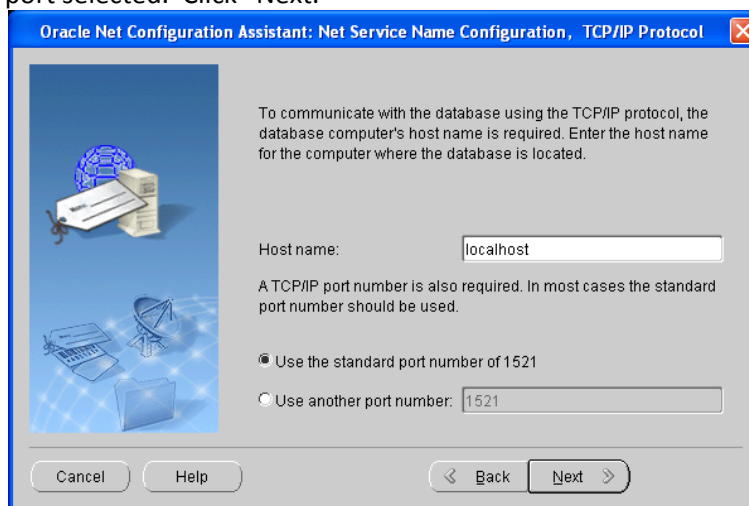


Figure 28: Net Service Name Configuration Screen - Select TCP/IP

- g. On the “Net Service Name Configuration, Test” screen, do not perform a test. Click “Next.”

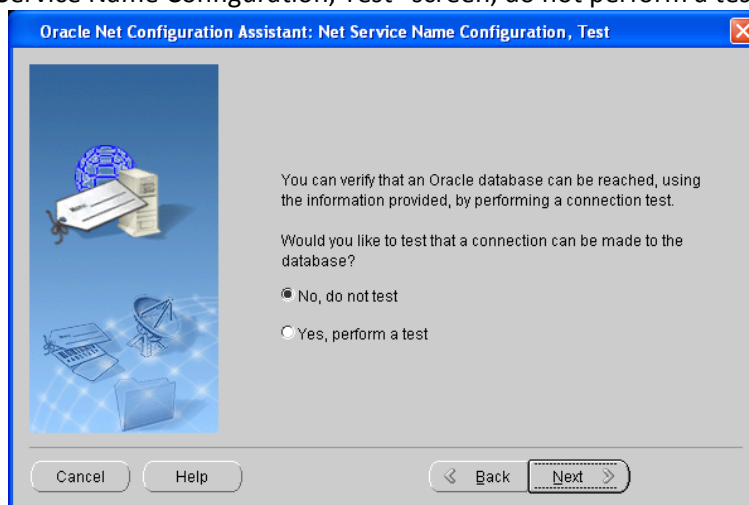


Figure 29: Net Service Name Configuration Screen - Test

- h. On the “Net Service Name Configuration, Net Service Name” screen, ensure the Net Service Name “poca” is already filled in, then click “Next.”

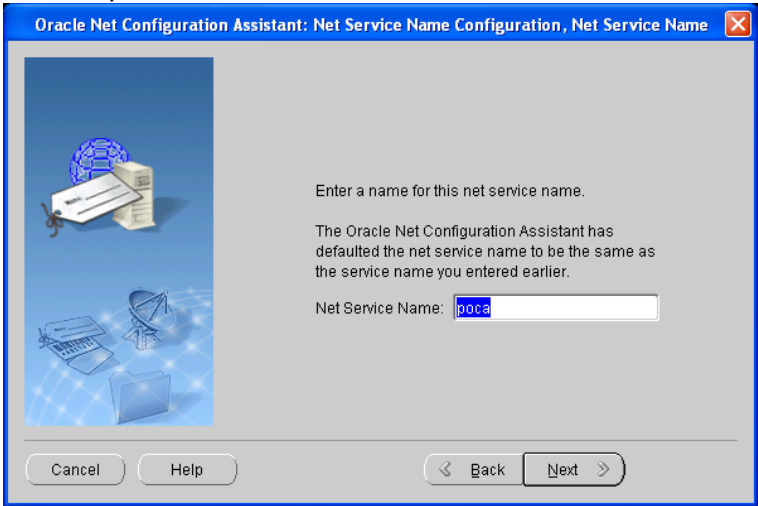


Figure 30: Net Service Name Configuration Screen - NSN

- i. On the “Net Service Name Configuration, Another Net Service Name?” screen, answer “no” and click “Next.”

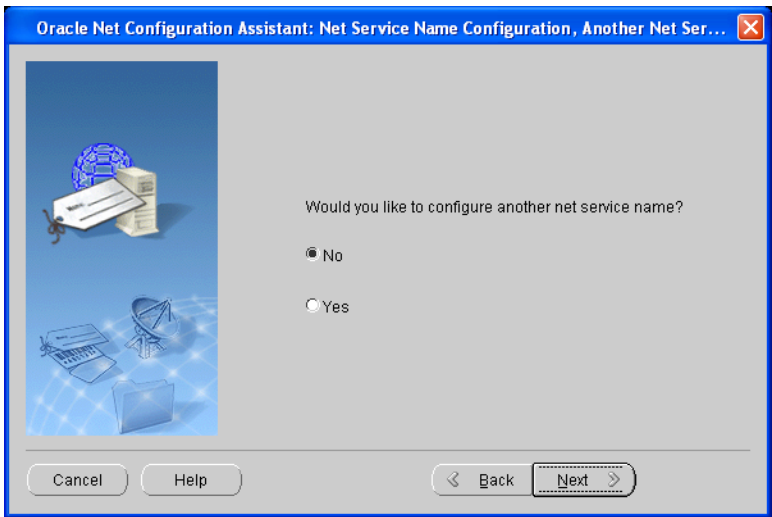


Figure 31: Net Service Name Configuration Screen - NSN

- j. On the “Net Service Name Configuration Done” screen, click “Next.”

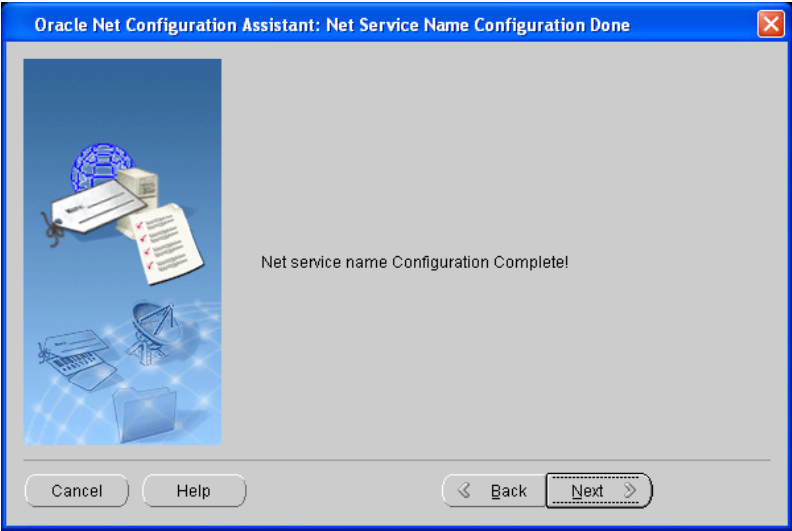


Figure 32: Net Service Name Configuration Screen - Done

- k. You will be returned to the “Welcome” screen. Click “Finish.”

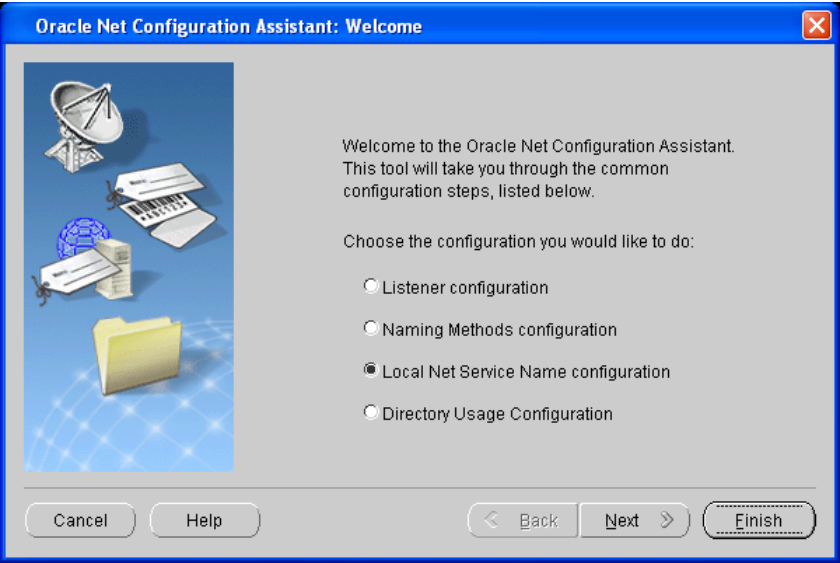
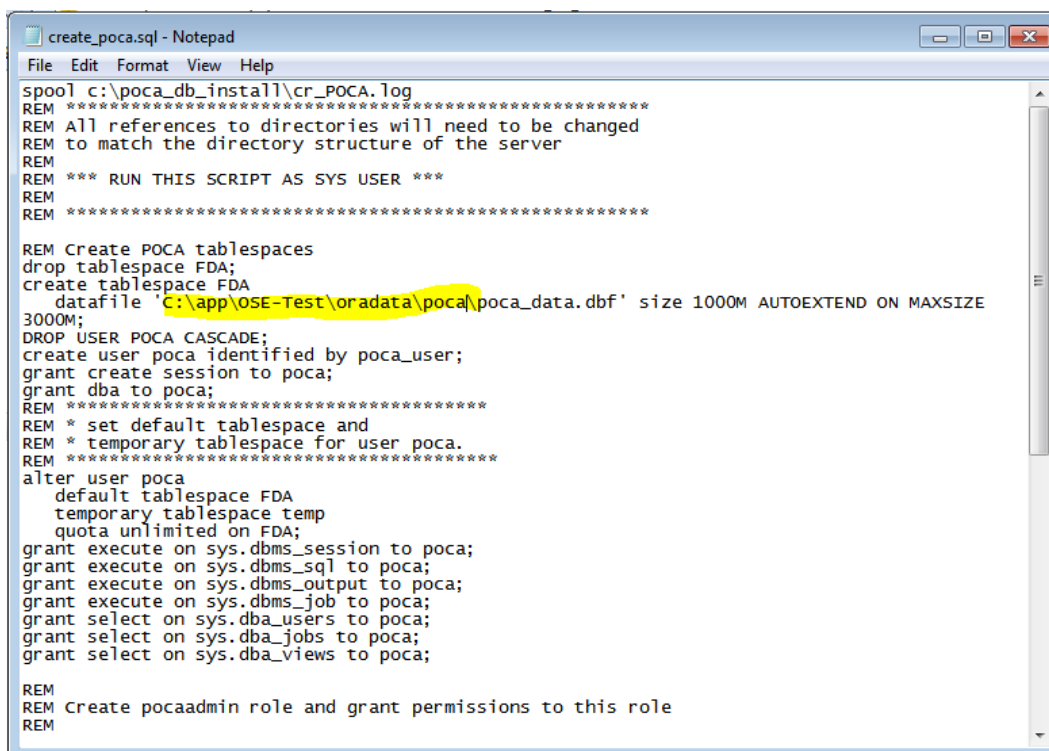


Figure 33: Welcome

### 3.3 Create the POCA database user and Roles

1. The script file, named 'create\_POCA.sql', is available in the directory 'POCA\_DB\_Install'. Data file path (yellow highlighted below) in this script may differ. So it is required to customize the script. To customize the create\_POCA.sql script:
  - a. Open the script in Notepad.
  - b. The section 'C:\app\OSE-Test\oradata\poca\' (*in line#13*) needs to be modified based on information provided in ' **Figure 13: Installing database-Step 5** '. Refer two field value Database file location and Global database name. Select the section 'C:\app\OSE-Test\oradata\poca\' in create\_POCA.sql file and replace with 'Database file location\Global database name' mentioned in ' **Figure 13: Installing database-Step 5** '.  
 In this case, Database file location : C:\app\OSE-Test\oradata and Global database name: poca. That is why the datafile path is mentioned in the create\_POCA.sql file is C:\app\OSE-Test\oradata\poca followed by poca\_data.dbf.
  - c. DO NOT REMOVE 'poca\_data.dbf', this data file will be created in this step.
  - d. In this script the user 'poca' will be created. The default password is poca\_user. If the default password are being used then proceed to the next step. The password can be changed, if required.
  - e. Save your changes and close the script.



```

create_poca.sql - Notepad
File Edit Format View Help
spool c:\poca_db_install\cr_POCA.log
REM *****
REM All references to directories will need to be changed
REM to match the directory structure of the server
REM
REM *** RUN THIS SCRIPT AS SYS USER ***
REM
REM *****

REM Create POCA tablespaces
drop tablespace FDA;
create tablespace FDA
  datafile 'C:\app\OSE-Test\oradata\poca\poca_data.dbf' size 1000M AUTOEXTEND ON MAXSIZE
3000M;
DROP USER POCA CASCADE;
create user poca identified by poca_user;
grant create session to poca;
grant dba to poca;
REM *****
REM * set default tablespace and
REM * temporary tablespace for user poca.
REM *****
alter user poca
  default tablespace FDA
  temporary tablespace temp
  quota unlimited on FDA;
grant execute on sys.dbms_session to poca;
grant execute on sys.dbms_sql to poca;
grant execute on sys.dbms_output to poca;
grant execute on sys.dbms_job to poca;
grant select on sys.dba_users to poca;
grant select on sys.dba_jobs to poca;
grant select on sys.dba_views to poca;

REM
REM Create pocadmin role and grant permissions to this role
REM

```

Figure 34: create\_POCA.sql

2. To execute the create\_POCA.sql script you need to connect to the database using SQL\*Plus. SQL\*Plus is a command-line Oracle tool for connecting to Oracle database:
  - e. Open SQL\* Plus as Select: Start -> All Programs -> Oracle- OraDb11g\_home1 -> Application Development -> and then select SQL PLUS.
  - f. The screen below describes how to open SQL\*Plus in **Windows 7**

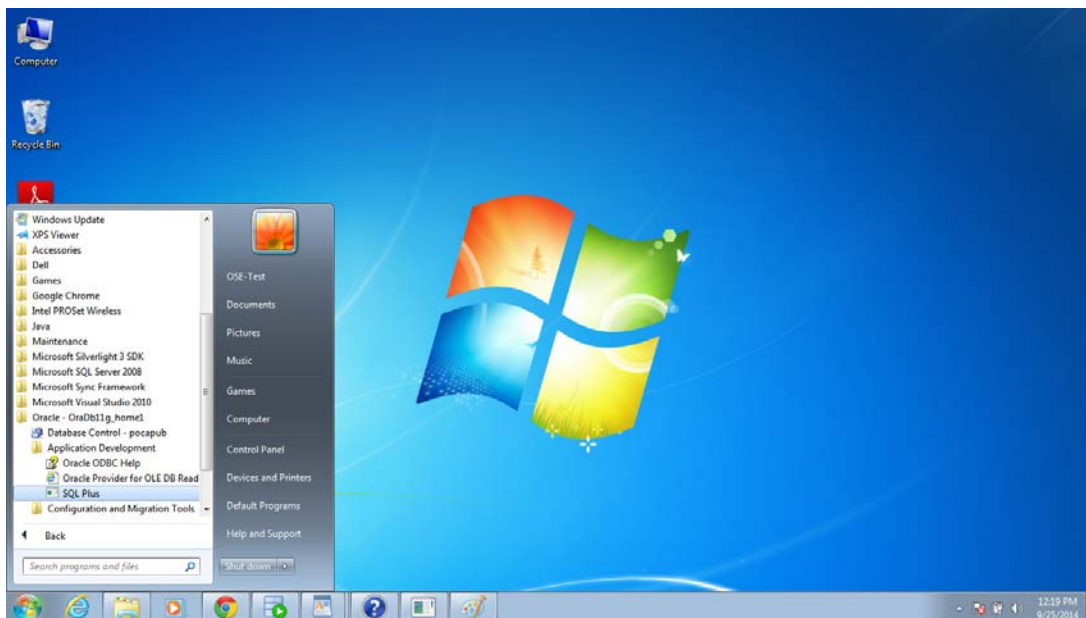


Figure 35: Open SQL\*Plus in Windows 7

In case of **Windows 8** you need to start from the screen below: Click on SQL Plus.

- g. The SQL\*Plus window will appear as below.

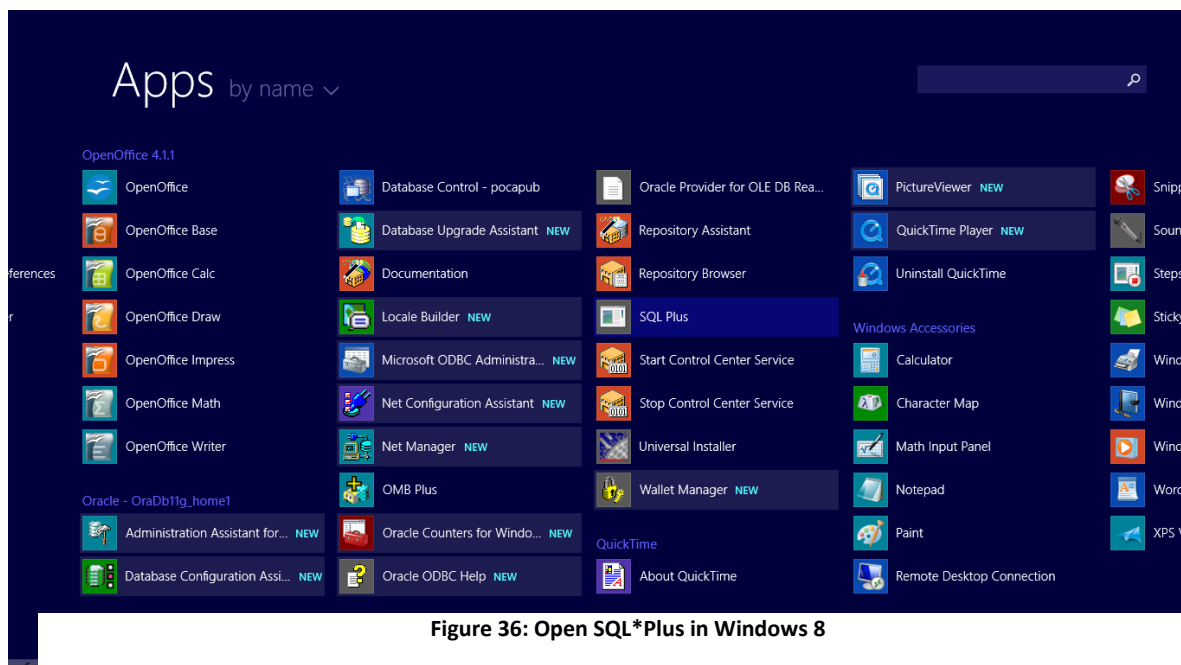


Figure 36: Open SQL\*Plus in Windows 8

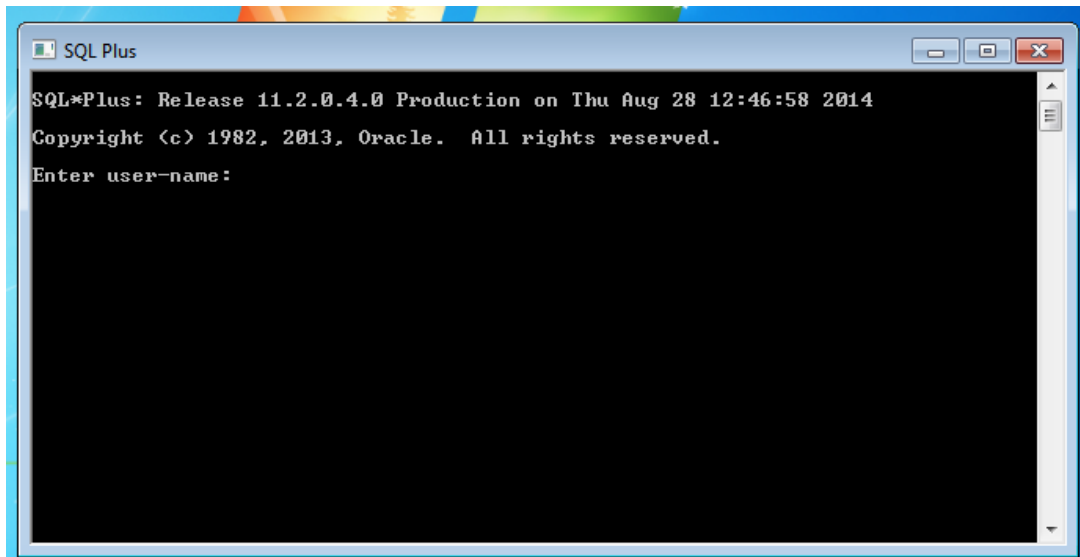


Figure 37: SQL Plus Editor

- h. In SQL\*Plus connect to the poca database with the super user 'SYS' as 'sys@poca as sysdba'. Press 'Enter' key and put the Password you created in Sec 3.2 step #8 earlier. It will go to the SQL command prompt.

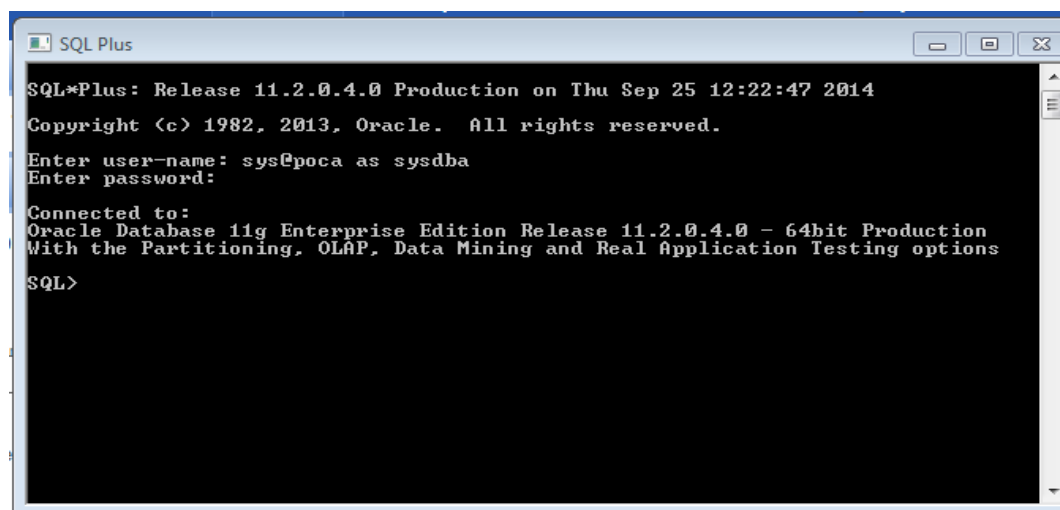


Figure 38: SQL Plus Editor as connected with sys

- i. In SQL\*Plus (while connected to poca database as user sys) in SQL prompt type as below.
- @C:\POCA\_DB\_Install\create\_POCA.sql
- j. Press ENTER key
- k. Review the **cr\_POCA.log** file created in C:\POCA\_DB\_Install folder for errors through NOTEPAD. If you see the ERROR as per screen below, please ignore those errors.

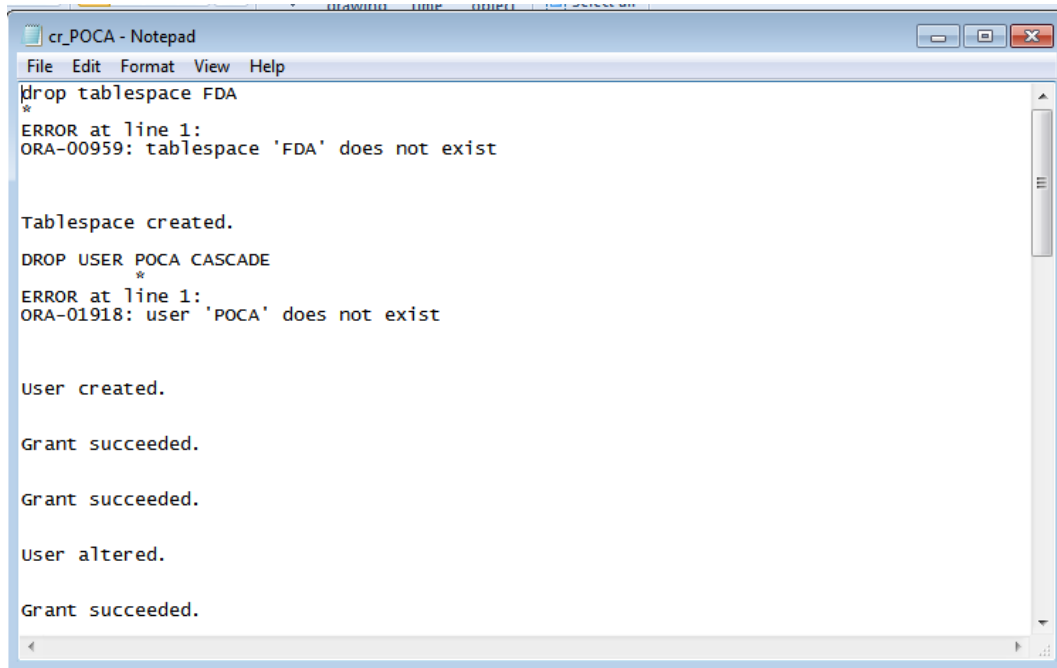


Figure 39: cr\_POCA.log

### 3.4 Import POCA Database

3. Please check if the folder 'dump\_dir' is created under C as per instruction in Section 3.1.
4. Open SQL\*Plus and connect to the database with SYS user.

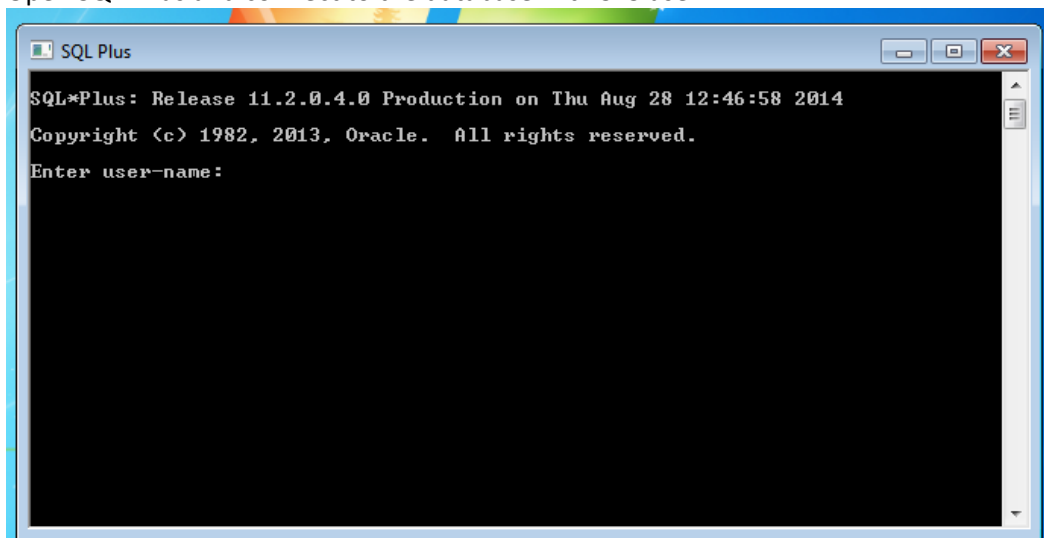


Figure 40: SQL Plus Editor

Type/Enter the followings as exactly appear :

SYS@poca as sysdba



```
SQL> CREATE OR REPLACE DIRECTORY DUMP_DIR AS 'C:\Dump_Dir';
```

Hit Enter key

```
SQL> GRANT READ, WRITE ON DIRECTORY DUMP_DIR TO POCA;
```

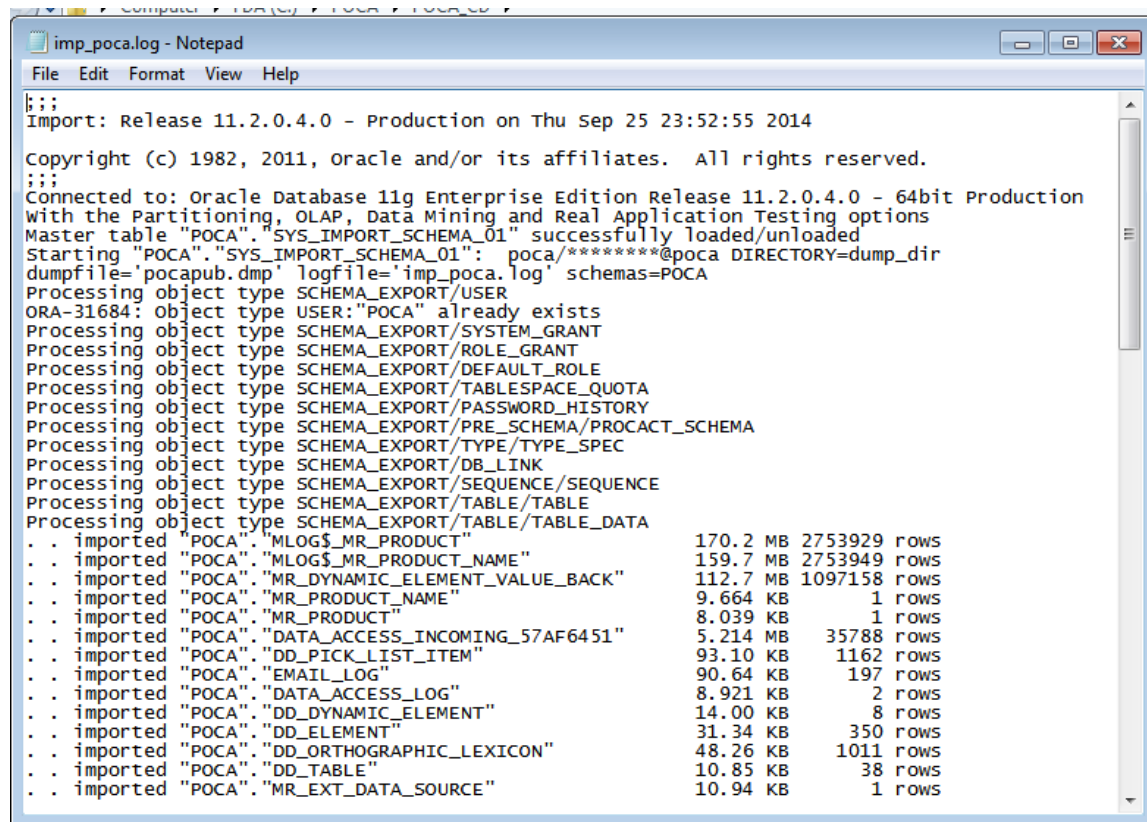
Hit Enter key

```
SQL> exit
```

Hit Enter key

5. If all the default settings were used in the previous step# 1, then proceed to Step 5b to run the command C:\POCA\_DB\_Install\ import\_poca.bat. If any of the settings were customized (e.g. password is changed), then the import\_poca.bat script will also need to be customized. To customize the C:\POCA\_DB\_Install\import\_poca.bat script:
  - a. **Do not double-click on the import\_poca.bat script!** In the Windows environment, double-clicking on a .bat file will cause Windows to execute the file. To open , edit the import\_poca.bat script in Notepad:
    - i. Right-click on the file name (a pop-up menu is displayed).
    - ii. Select the Edit option from the pop-up menu (this will open a Notepad session for the selected file);
    - iii. Make appropriate changes by providing the user name, password, and the database name (if other than default settings are used). All default settings are already in the script, including the default user name poca, password poca\_user, and database name poca. If all default settings are being used then close the file and proceed to the next step.
    - iv. Save your changes and close the script.
  - b. To execute the C:\POCA\_DB\_Install\ import\_poca.bat script, double-click on the file icon in Windows Explorer.
6. Review the import\_poca.log file created by default in the C:\dump\_dir directory for errors. Open the file import\_poca.log in NOTEPAD. The sample log file content is below. At the end it should tell as for example "Job "POCA.SYS\_IMPORT\_SCHEMA\_01" completed with 1 error(s)...".

NOTE: Please ignore the error : ORA-31684: object type USER: "POCA" already exists.



```

imp_poca.log - Notepad
File Edit Format View Help
:::
Import: Release 11.2.0.4.0 - Production on Thu Sep 25 23:52:55 2014
copyright (c) 1982, 2011, Oracle and/or its affiliates. All rights reserved.
:::
Connected to: Oracle Database 11g Enterprise Edition Release 11.2.0.4.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options
Master table "POCA"."SYS_IMPORT_SCHEMA_01" successfully loaded/unloaded
Starting "POCA"."SYS_IMPORT_SCHEMA_01": poca/*****@poca DIRECTORY=dump_dir
dumpfile='pocapub.dmp' logfile='imp_poca.log' schemas=POCA
Processing object type SCHEMA_EXPORT/USER
ORA-31684: object type USER:"POCA" already exists
Processing object type SCHEMA_EXPORT/SYSTEM_GRANT
Processing object type SCHEMA_EXPORT/ROLE_GRANT
Processing object type SCHEMA_EXPORT/DEFAULT_ROLE
Processing object type SCHEMA_EXPORT/TABLESPACE_QUOTA
Processing object type SCHEMA_EXPORT/PASSWORD_HISTORY
Processing object type SCHEMA_EXPORT/PRE_SCHEMA/PROCACT_SCHEMA
Processing object type SCHEMA_EXPORT/TYPE/TYPE_SPEC
Processing object type SCHEMA_EXPORT/DB_LINK
Processing object type SCHEMA_EXPORT/SEQUENCE/SEQUENCE
Processing object type SCHEMA_EXPORT/TABLE/TABLE
Processing object type SCHEMA_EXPORT/TABLE/TABLE_DATA
. . imported "POCA"."MLOG$_MR_PRODUCT" 170.2 MB 2753929 rows
. . imported "POCA"."MLOG$_MR_PRODUCT_NAME" 159.7 MB 2753949 rows
. . imported "POCA"."MR_DYNAMIC_ELEMENT_VALUE_BACK" 112.7 MB 1097158 rows
. . imported "POCA"."MR_PRODUCT_NAME" 9.664 KB 1 rows
. . imported "POCA"."MR_PRODUCT" 8.039 KB 1 rows
. . imported "POCA"."DATA_ACCESS_INCOMING_57AF6451" 5.214 MB 35788 rows
. . imported "POCA"."DD_PICK_LIST_ITEM" 93.10 KB 1162 rows
. . imported "POCA"."EMAIL_LOG" 90.64 KB 197 rows
. . imported "POCA"."DATA_ACCESS_LOG" 8.921 KB 2 rows
. . imported "POCA"."DD_DYNAMIC_ELEMENT" 14.00 KB 8 rows
. . imported "POCA"."DD_ELEMENT" 31.34 KB 350 rows
. . imported "POCA"."DD_ORTHOGRAPHIC_LEXICON" 48.26 KB 1011 rows
. . imported "POCA"."DD_TABLE" 10.85 KB 38 rows
. . imported "POCA"."MR_EXT_DATA_SOURCE" 10.94 KB 1 rows

```

Figure 41: imp\_poca.log

7. If the data load directory poca\_data\_import is created in different drive than C drive then do the following otherwise skip to next step 8.

Please change the path name of "u\_setting\_value". Open SQL\*Plus and connect with "poca" user as poca/poca\_user@poca

```

SQL> UPDATE poca.user_setting set u_setting_value = 'c:\poca_data_import' where
i_setting_id = 4084 and ui_user_uid = '01';
(Then ENTER)

```

```

SQL> COMMIT;
(Then ENTER)

```

8. In SQL\*Plus as the user "poca" run the following SQL commands substituting your email address in the line "set u\_setting\_value = 'youremail@company.domain'". Use a valid email address to replace 'youremail@company.domain'.

```

SQL> UPDATE user_setting
SET u_setting_value = 'youremail@company.domain'
WHERE i_setting_id in (4060,4061,4083);
(Then ENTER)

```

```
SQL> commit;  
(Then ENTER)
```

### 3.5 Data Load Setup

9. The POCA database includes two data sources, DrugsatFDA and RxNorm, which will upload upon installation. To upload monthly data refreshes for these data sources, follow the instructions 10 through 12 below.

10. Follow the steps below to create EXT\_TABLES directory in the database

Go to SQL\*Plus command prompt. To connect POCA database as SYS user run the following:

Enter user-name: SYS / as sysdba

Enter Password:

To create EXT\_TABLES execute the below commands:

```
SQL>CREATE OR REPLACE DIRECTORY EXT_TABLES AS 'C:\POCA_DATA_IMPORT';
```

```
SQL>GRANT READ, WRITE ON DIRECTORY EXT_TABLES TO POCA;
```

```
SQL>EXEC DBMS_JAVA.grant_permission( 'POCA', 'SYS:java.io.FilePermission',  
'c:\poca_data_import\*', 'read, write, execute, delete');
```

11. a. Copy the file 'drugsatfda20140924\_New.txt' from the C:\ POCA\_DB\_Install \POCA\_Datasources directory to the C:\poca\_data\_import directory.  
  
b. Copy the file 'rxnorm\_20140902\_New.txt' from the C:\ POCA\_DB\_Install \POCA\_Datasources directory to the C:\poca\_data\_import directory.
12. For future drugs data, FDA will provide formatted data files in the internet site. You can download data files from there and copy those into 'poca\_data\_import' directory and The format of the data file names would be as 'rxnorm\_YYYYMMDD\_New.txt' for RxNorm data file and 'drugsatfdaYYYYMMDD\_New.txt for DrugsatFDA data file (Example for YYYYMMDD is 20141125 for Nov 25, 2014 is the down load date). After that you can load data through POCA application. Details of data load procedures are described in Help manual.
13. The POCA database creation is complete. Proceed to the next section, "Installing the Application."

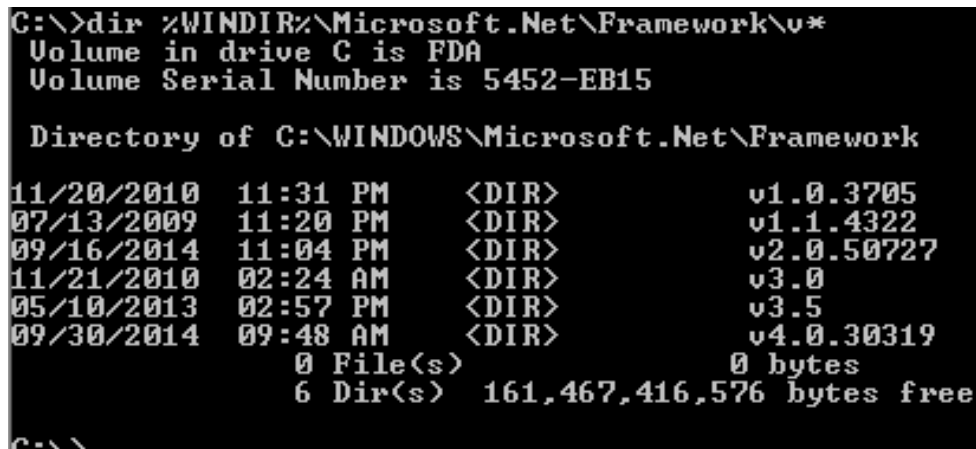
## 4. Installing the Application

Assumptions:

- C:\inetpub\wwwroot is the default folder for IIS virtual directories
- .Net framework 4.0 is installed

To check which .NET Framework version is installed, run the following from command line .

dir %WINDIR%\Microsoft.Net\Framework\v\*



```
C:\>dir %WINDIR%\Microsoft.Net\Framework\v*
Volume in drive C is FDA
Volume Serial Number is 5452-EB15

Directory of C:\WINDOWS\Microsoft.Net\Framework

11/20/2010  11:31 PM    <DIR>          v1.0.3705
07/13/2009  11:20 PM    <DIR>          v1.1.4322
09/16/2014  11:04 PM    <DIR>          v2.0.50727
11/21/2010  02:24 AM    <DIR>          v3.0
05/10/2013  02:57 PM    <DIR>          v3.5
09/30/2014  09:48 AM    <DIR>          v4.0.30319
           0 File(s)              0 bytes
           6 Dir(s)  161,467,416,576 bytes free

C:\>
```

Figure 42: .NET Framework verify

Create a folder 'poca' under C:\inetpub\wwwroot. On the POCA extracted folder, find the folder "POCA\_Published\_Files." Copy the contents of the folder into the x:\inetpub\wwwroot\poca folder on your computer, where x is the drive where IIS is installed (usually C:\).

Next steps are different in Windows 2003 and Windows 7/8

## 4.1 Installation in Windows 2003

1. Open Internet Information Services Manager (Start->All Programs->Administrative Tools->Internet Information Services Manager)

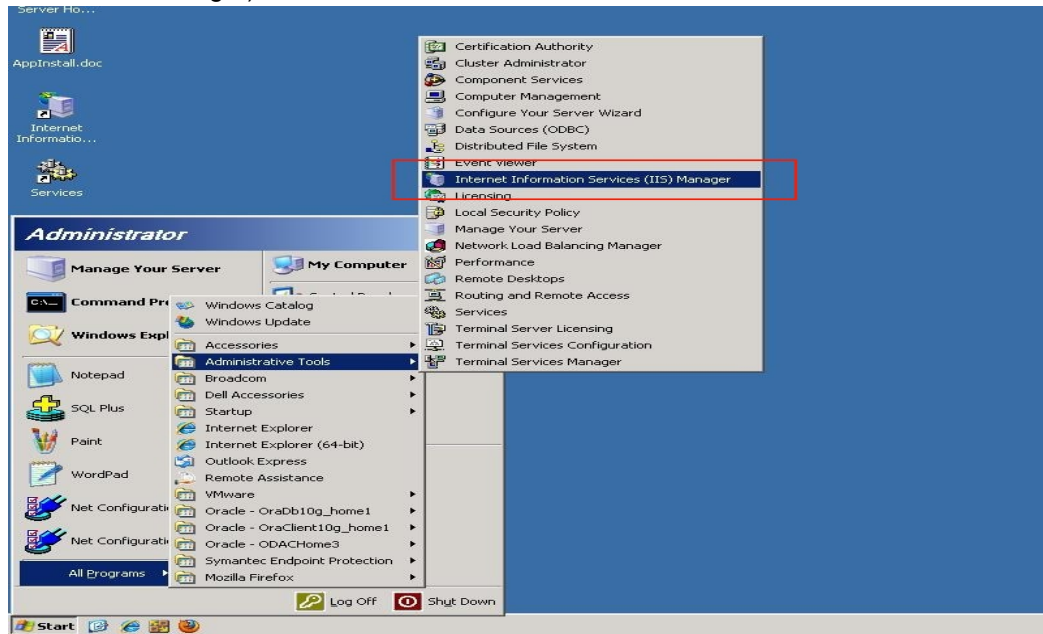


Figure 43: Start IIS

- 2. In the left pane tree view, click to expand "Web Sites" to show the POCA entry.
- 3. Right click on the poca entry and click Properties.

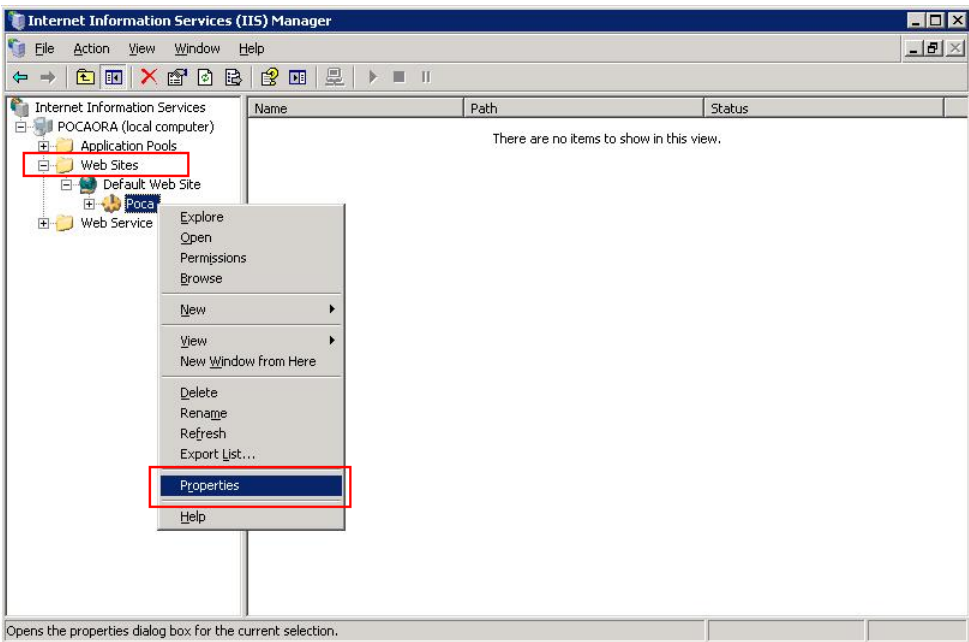


Figure 44: IIS Manager

- 4. Select the Directory tab and on "Application name:" click Create. The "Application Name" should be set to poca.

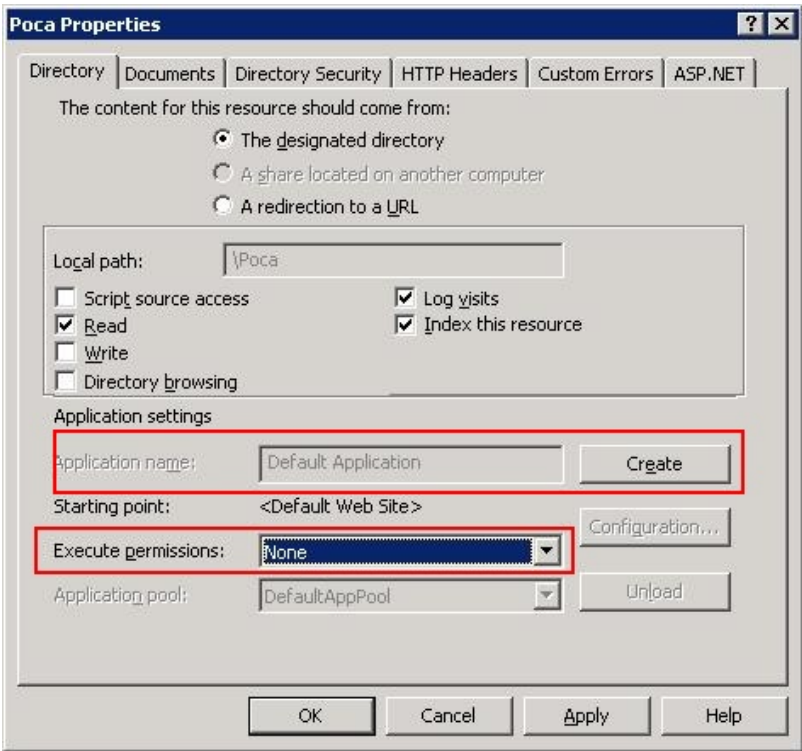


Figure 45: POCA Properties -1

5. On the Directory tab "Execute permissions" needs to be set to "Scripts Only"

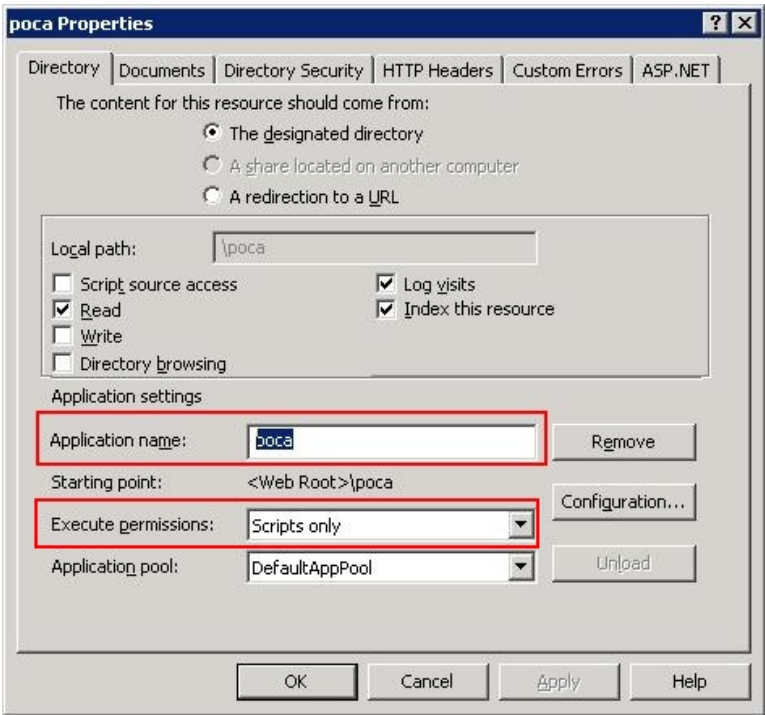


Figure 46: POCA Properties -2

6. On the Documents tab the "Default content page" needs to include default.aspx and be first in the list. A new entry can be added if it does not exist.

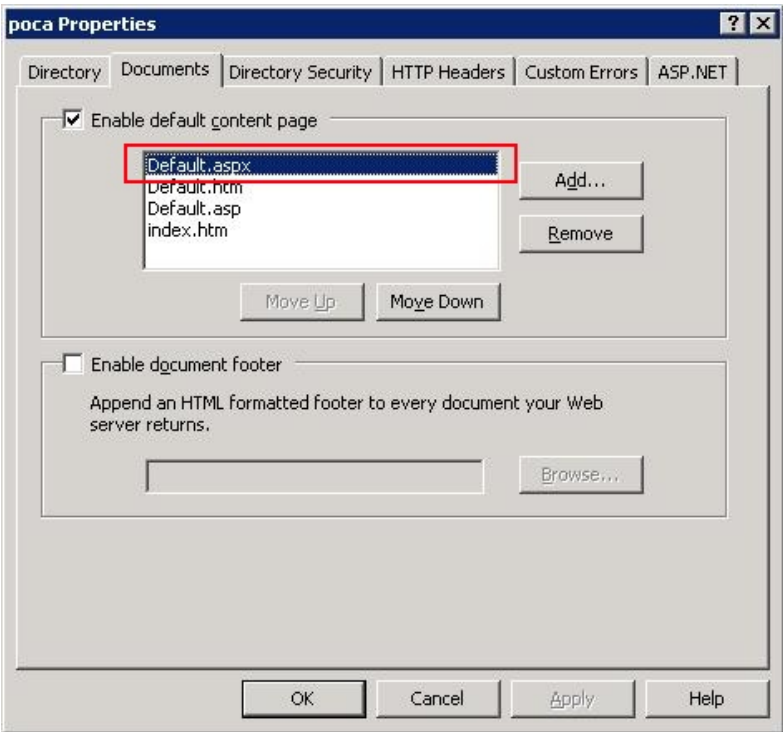


Figure 47: POCA Properties -3

7. On the ASP.NET tab make sure that the version is set to 4.0.xxxx. This selection corresponds to the .Net framework 4.0.

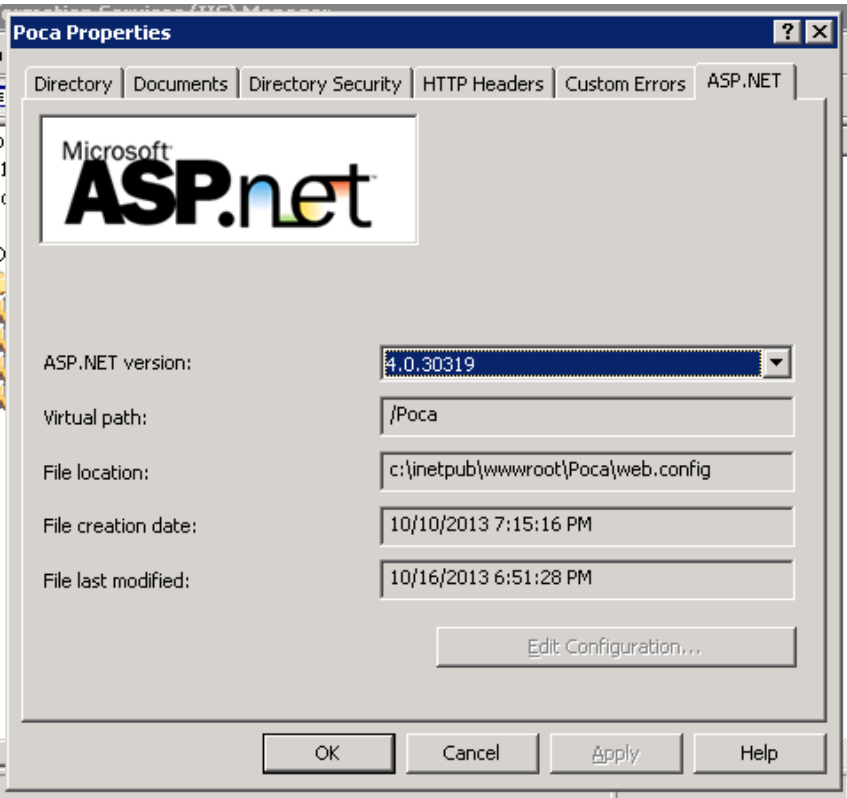


Figure 48: POCA Properties -4

8. Open Windows Explorer, navigate to “c:\inetpub\wwwroot\poca.” Right click on the “c:\inetpub\wwwroot\poca\Error Log” folder

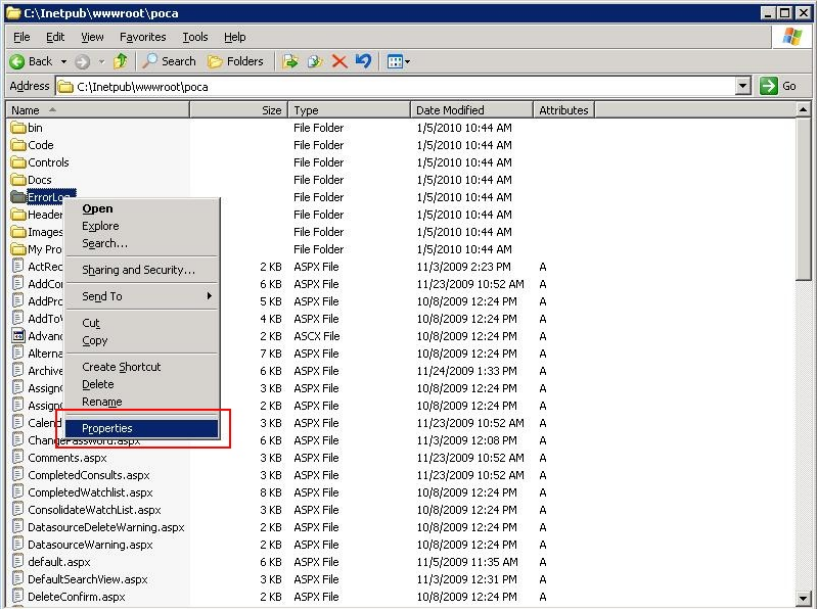


Figure 49: Error Log Folder



9. Select Properties->Security and select Users ('server name'\Users)  
If you would like to use the error logging feature you will need to select Allow write to allow writing to this folder for logging.

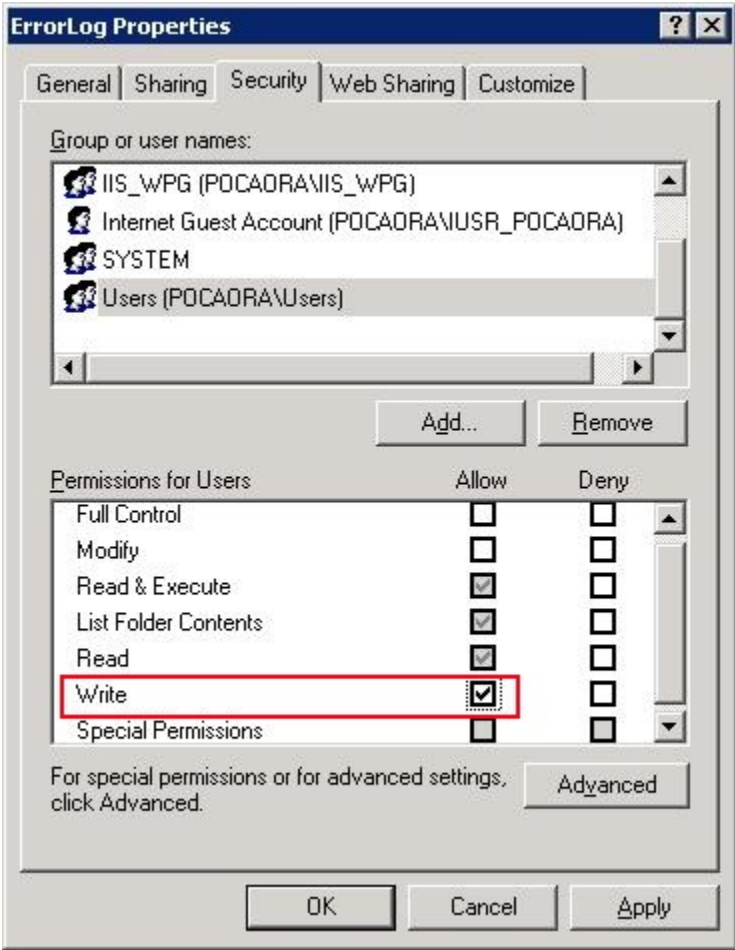


Figure 50: Error Log Properties

10. Go to HTTP Headers tab and uncheck 'Enable anonymous access'.

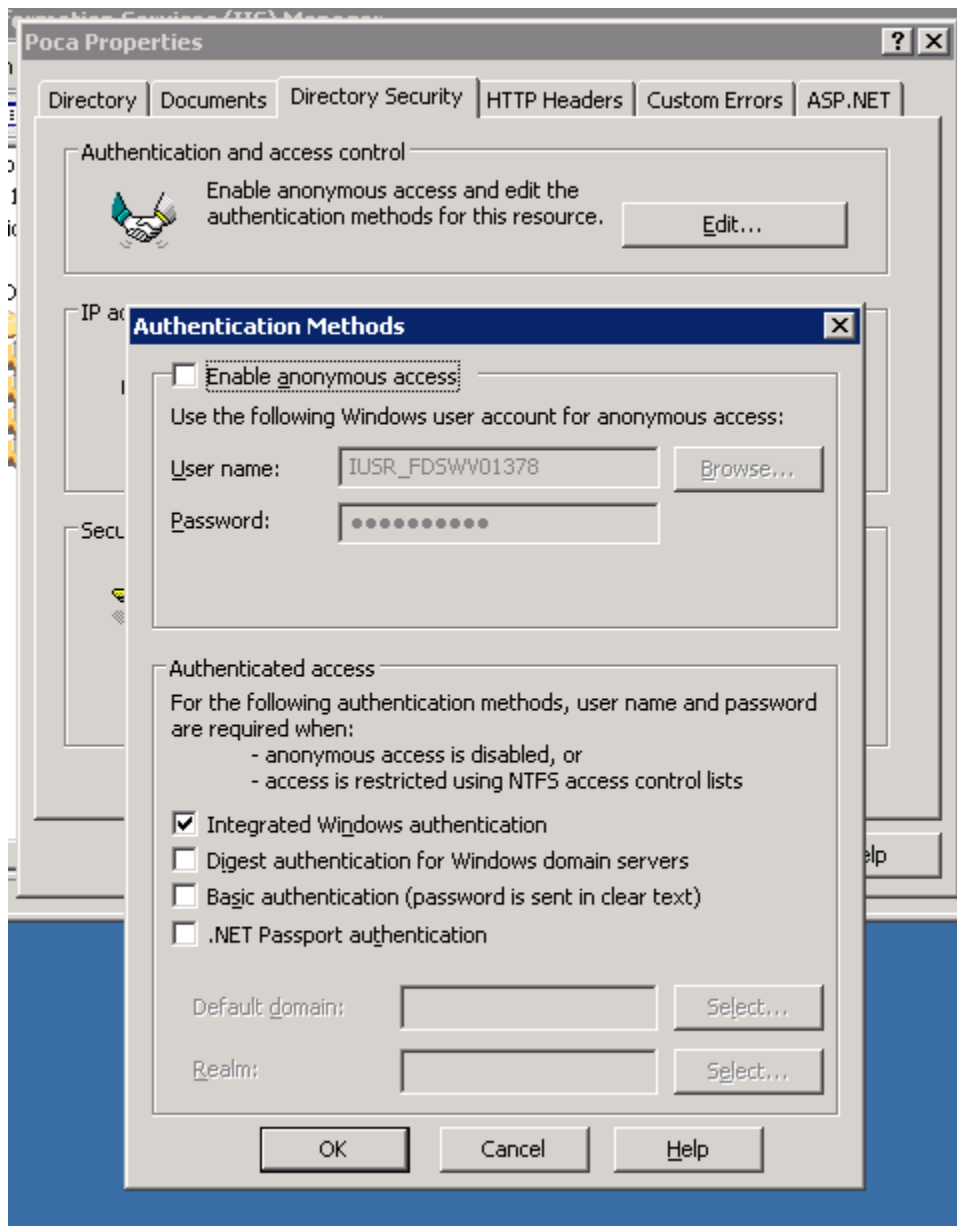


Figure 51: Authentication Methods

11. To modify the settings that will be specific to your installation of POCA select the Edit Configuration button from the ASP.NET tab.

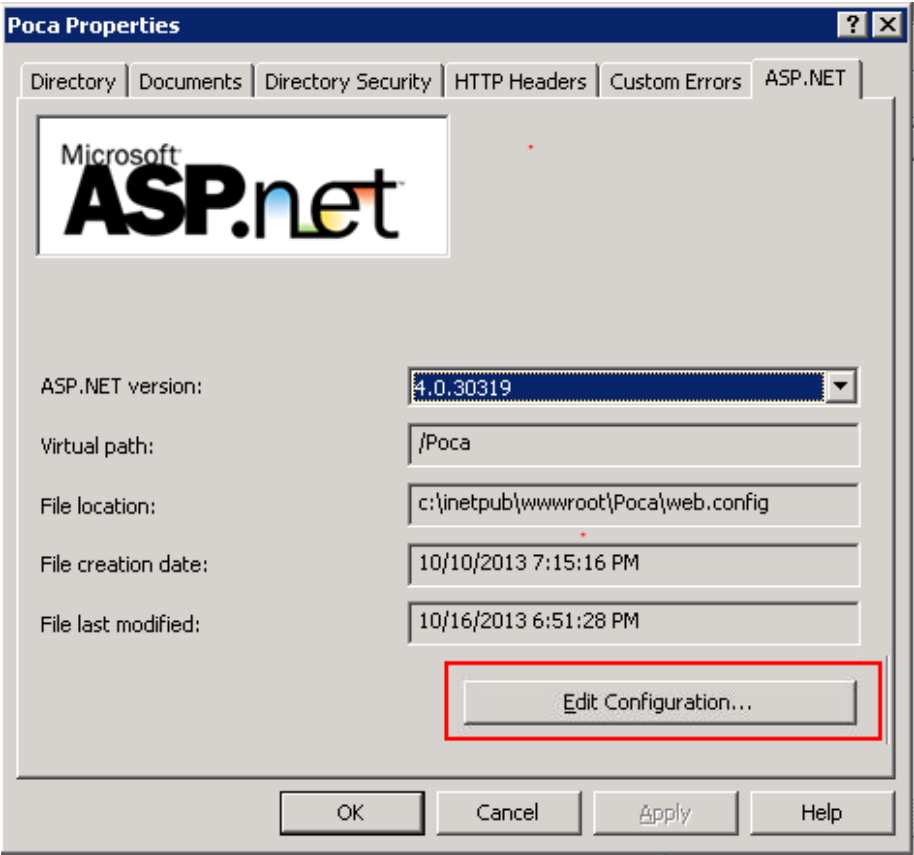


Figure 52: POCA Properties -5

12. The settings that should be reviewed for accuracy in your current POCA installation will be located on the general tab under application settings.

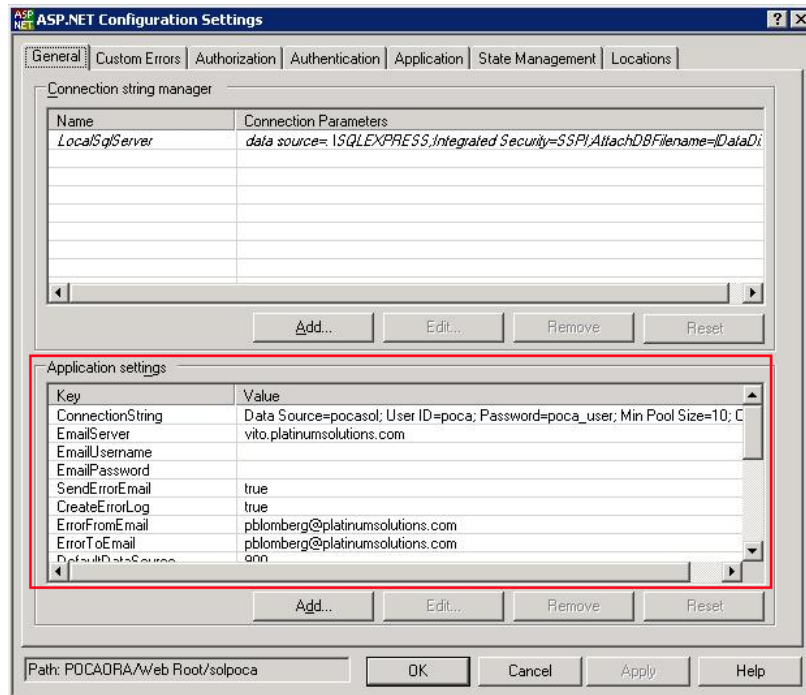


Figure 53: ASP.NET Configuration Settings

Explanation of relevant Application settings:

Key	Value	Description
ConnectionString	Named database	Points to the defined named database.
EmailServer	mail.domain.com	For emailing to work this value needs to be set to SMTP server
EmailUsername	username	Username for authenticated user for the email server
EmailPassword	password	Password for authenticated user for the email server
SendErrorEmail	true	Set value to "true" or "false" to send an email when POCA encounters an unhandled error.
CreateErrorLog	True	Set value to "true" or "false" to write error to log file when POCA encounters an unhandled error.
ErrorFromEmail	<a href="#">name@domain.com</a>	From whom the error email will be sent.
ErrorToEmail	<a href="#">name@domain.com</a>	To whom the error email will be sent.
FileUploadDirectory	poca_data_import	Location of the data source files that will be imported in POCA

13. If you are using a 32-bit Oracle client, then you will need to copy the “Oracle.DataAccess.dll” file located in the POCA installation CD folder “ODAC\11g\_32\_2.x “ to the “c:\inetpub\wwwroot\poca\bin” folder and replace the current file that is located there. The ODAC folder contains both the 32 and 64 bit versions of the “Oracle.DataAccess.dll” file. If you are using 64-bit Oracle client, no need to replace any dll.
14. Modify web.config file under “C:\inetpub\wwwroot\poca” folder accordingly to the deployment option. For example, the email setup depends on the deployment option. Please check in Sec 4: Additional Notes.
15. Restart the Web Site.
16. To run POCA from IIS and to verify the settings are correct, you need to right click on poca under “web sites” and select browse.

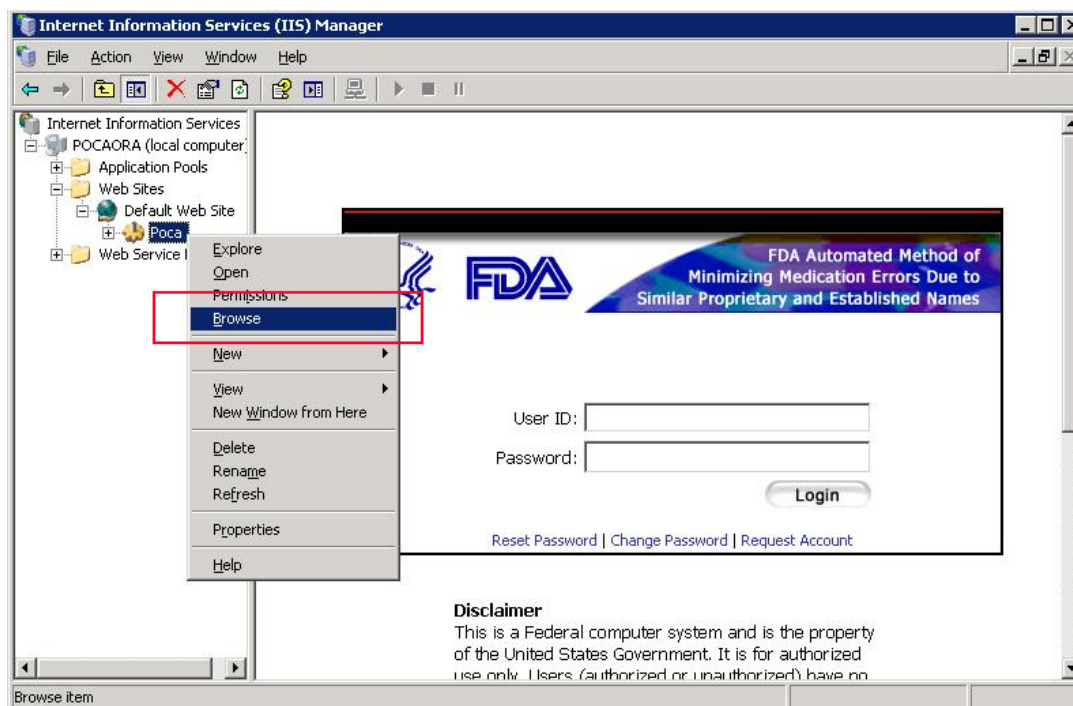


Figure 54: IIS Manager Browse

17. Log into the application with the User ID “Admin” and password “pocaadmin\$.”

## 4.2 Installation in Windows 7/ Windows 8

1. Open IIS Manager by putting 'iis' on the 'search program and files' after Windows Start menu for Windows 7. IIS Manager can be started in **Windows 8** as below

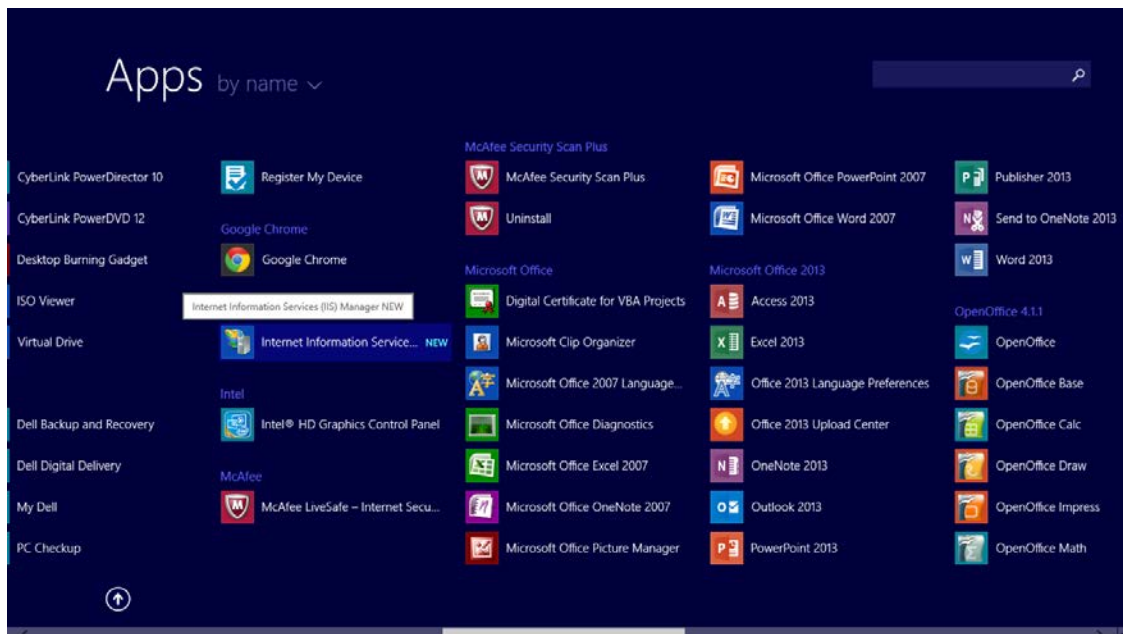


Figure 55: Open IIS Manager in Windows 8

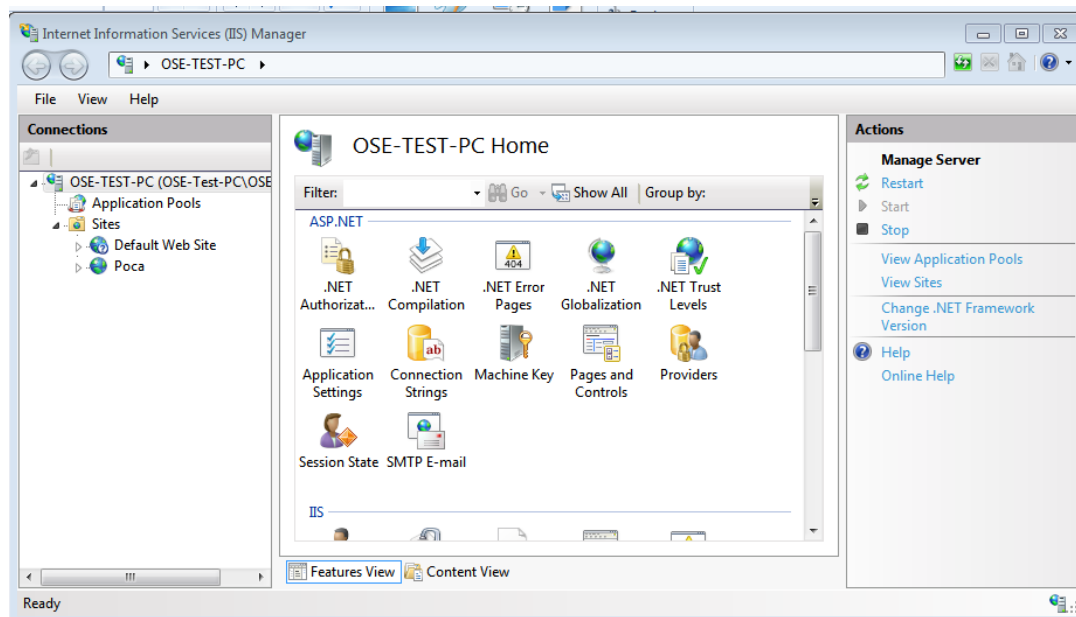


Figure 56: IIS Manager

2. Right click on “Sites” in the left menu and click on Add web site. Fill up the configurations as below

**Add Web Site**

Site name:  Application pool:

**Content Directory**

Physical path:

Pass-through authentication

**Binding**

Type:  IP address:  Port:

Host name:

Example: www.contoso.com or marketing.contoso.com

☒ Start Web site immediately

Figure 57: Add Website

3. Expand “Sites” and you will find “poca” under there. Click on Poca folder and click on Advanced settings in the right pane.

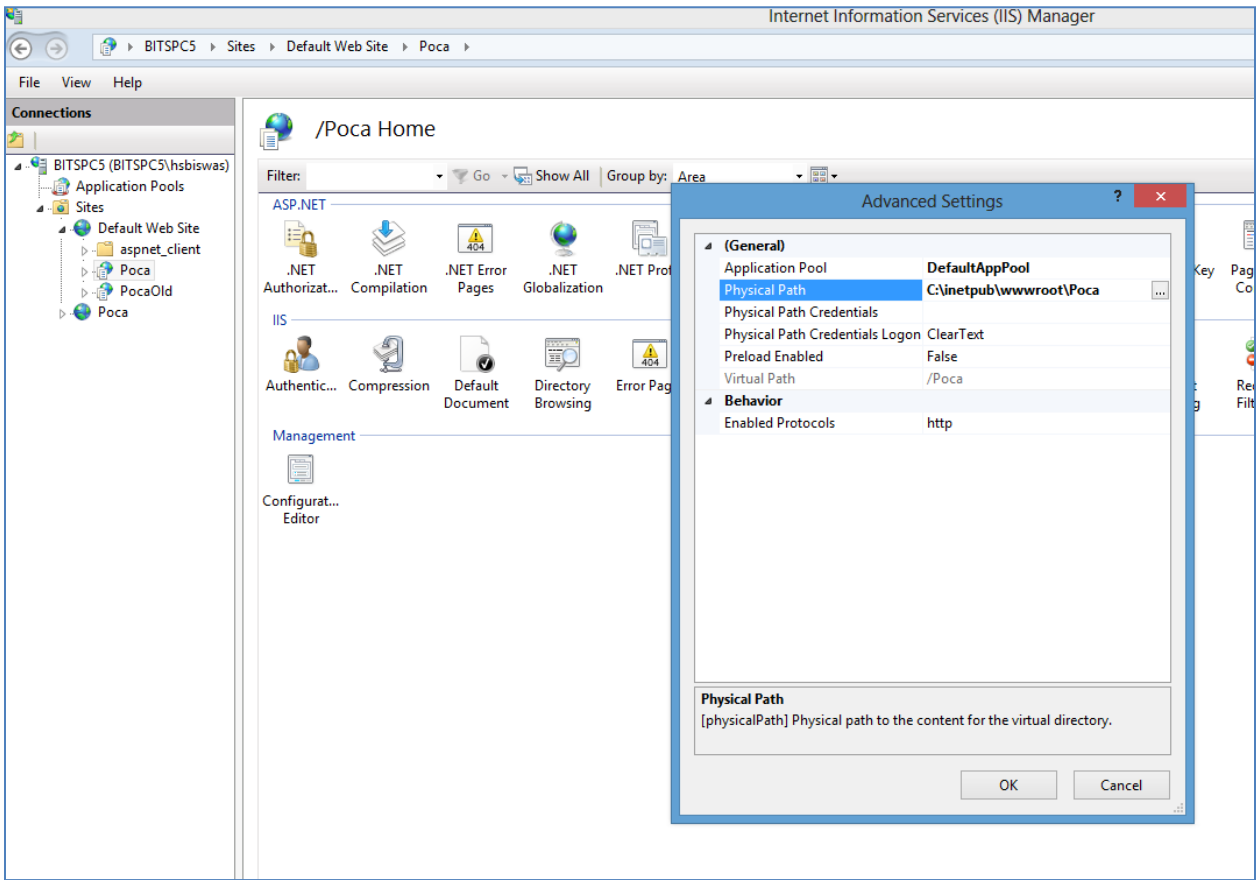


Figure 58: Advanced Settings



4. **The Application pool is the DefaultAppPool.** Check the properties of DefaultApplication pool. .NET Framework should be 4.0 and run under classic or integrated pipeline
- The following screen will appear for Windows 7 IIS

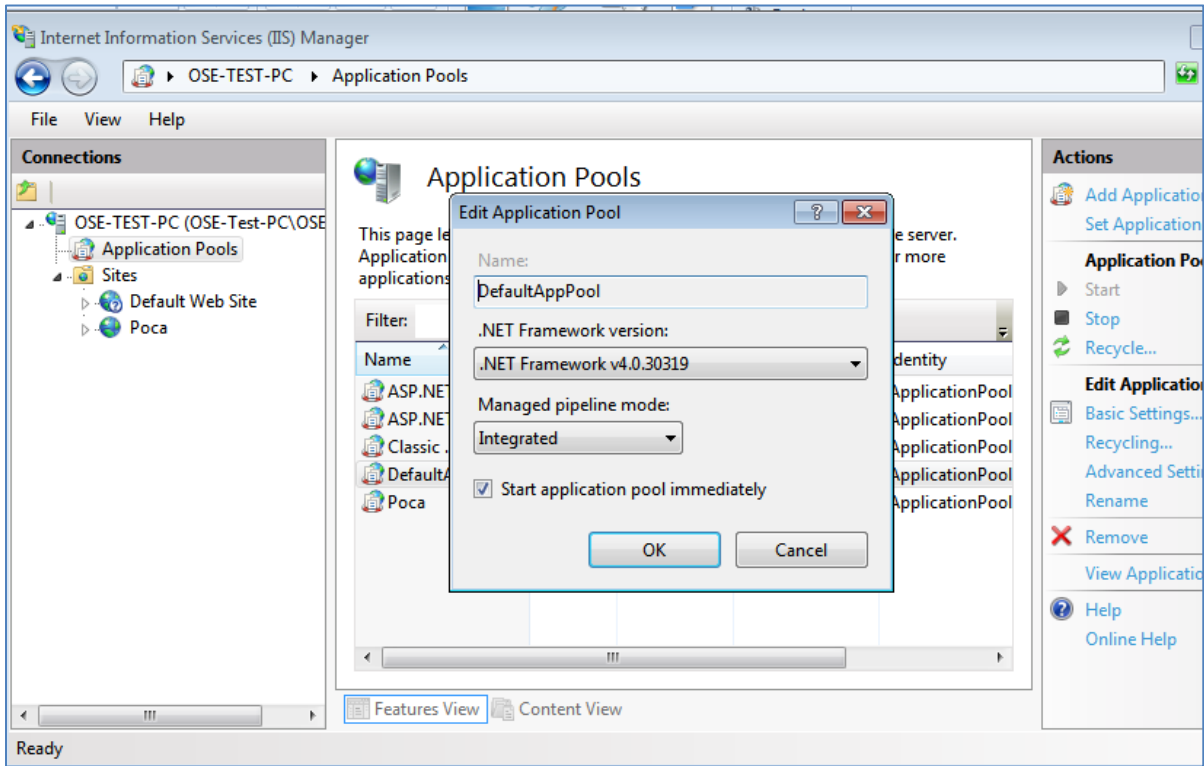


Figure 59: Check .NET Framework version in windows 7

Same screen for Windows 8 IIS will be little different as below:

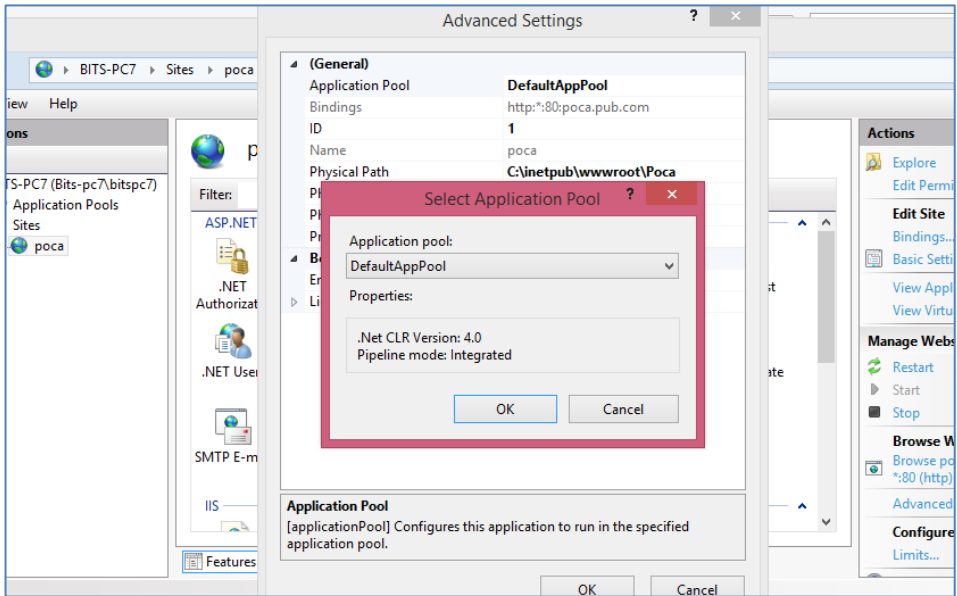
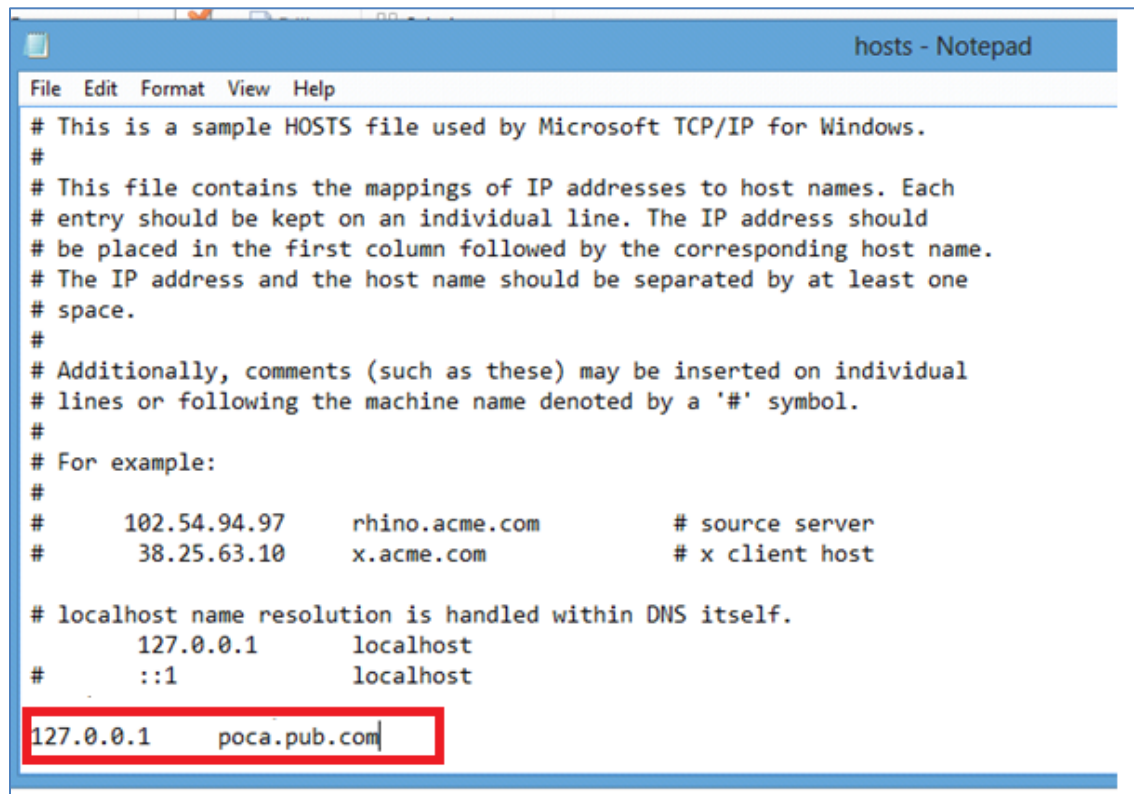


Figure 60: Check .Net Framework version in Windows 8

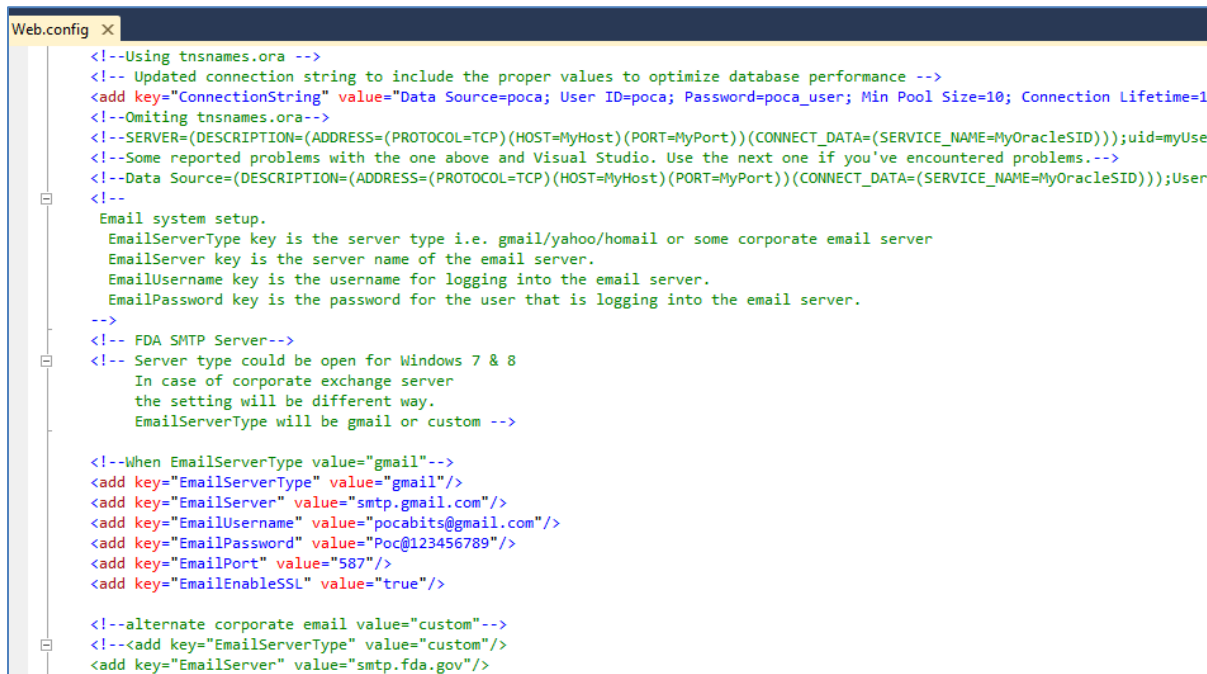
5. There is a host name entry for the application during the creation of Web site through IIS Manager. Your host name is poca.pub.com and hosts file is located at C:\Windows\System32\Drivers\etc. Enter the new host as below. The Administrator privilege is required to modify the hosts file. Open NOTEPAD as Administrator and open the file on there. Add the new entry at the bottom as below.



```
File Edit Format View Help
# This is a sample HOSTS file used by Microsoft TCP/IP for Windows.
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
#       102.54.94.97       rhino.acme.com           # source server
#       38.25.63.10       x.acme.com               # x client host
#
# localhost name resolution is handled within DNS itself.
#       127.0.0.1         localhost
#       ::1               localhost
127.0.0.1   poca.pub.com
```

Figure 61: Sample Host File

6. **Web.config** file under c:/inetpub/wwwroot/poca folder needs to be configured.
  - a. Open the file web.config in notepad
  - b. Based on EmailServerType the values need to modify. If the corporate SMTP server is used, then 'EmailServerType' will be 'Custom' otherwise 'gmail' can be used for any publicly open email server. **In publicly open email server DO NOT CHANGE '<add key="EmailServerType" value = "gmail" />'**. If you want to use different email servers other than Gmail e.g. Hotmail, Yahoo etc., just change the other variables like EmailServer, Emailusername, EmailPassword, EmailPort and EmailEnableSSL accordingly. In that case, you can replace the value of the variables 'EmailUsername' and 'EmailPassword' with your own email account.



```

Web.config X
<!--Using tnsnames.ora -->
<!-- Updated connection string to include the proper values to optimize database performance -->
<add key="ConnectionString" value="Data Source=poca; User ID=poca; Password=poca_user; Min Pool Size=10; Connection Lifetime=12" />
<!--Omitting tnsnames.ora-->
<!--SERVER=(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=MyHost)(PORT=MyPort))(CONNECT_DATA=(SERVICE_NAME=MyOracleSID)));uid=myUser
<!--Some reported problems with the one above and Visual Studio. Use the next one if you've encountered problems.-->
<!--Data Source=(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=MyHost)(PORT=MyPort))(CONNECT_DATA=(SERVICE_NAME=MyOracleSID)));User
<!--
Email system setup.
EmailServerType key is the server type i.e. gmail/yahoo/homail or some corporate email server
EmailServer key is the server name of the email server.
EmailUsername key is the username for logging into the email server.
EmailPassword key is the password for the user that is logging into the email server.
-->
<!-- FDA SMTP Server-->
<!-- Server type could be open for Windows 7 & 8
In case of corporate exchange server
the setting will be different way.
EmailServerType will be gmail or custom -->

<!--When EmailServerType value="gmail"-->
<add key="EmailServerType" value="gmail"/>
<add key="EmailServer" value="smtp.gmail.com"/>
<add key="EmailUsername" value="pocabits@gmail.com"/>
<add key="EmailPassword" value="Poc@123456789"/>
<add key="EmailPort" value="587"/>
<add key="EmailEnableSSL" value="true"/>

<!--alternate corporate email value="custom"-->
<!--<add key="EmailServerType" value="custom"/>
<add key="EmailServer" value="smtp.fda.gov"/>

```

Figure 62: Web.config -1

- c. Please replace the value of 'ErrorFromEmail' and 'ErrorToEmail' variables shown in the Figure 63 below with your email or any valid Administrator email. If there is any application error happens, the application will email the error to this email account.

```

<!-- ERROR REPORTING -->
<add key="SendErrorEmail" value="true" />
<add key="CreateErrorLog" value="true" />
<!-- ONLY ONE FROM AND TO EMAIL ALLOWED-->
<add key="ErrorFromEmail" value="youremail@domain.com" />
<add key="ErrorToEmail" value="youremail@domain.com" />
<!--

```

Figure 63: Web.config - 2

7. Open the URL <http://poca.pub.com/> and Log into the application with the User ID "Admin" and password "pocaadmin\$."

## 4.3 Test your Installation

Once installation is complete, you can verify the operation of the application by running a test search using the name, 'Tri-Vit with Fluoride'. To run the test search, perform the following steps using a returned results threshold of 50% and dynamic weights setting of 50% Orthographic and 50% Phonetic:

1. Type 'Tri-Vit with Fluoride' in the search text field
2. Select Orthographic and Phonetic as the search types
3. Select Drugs@FDA and RxNorm as the datasources

Your search screen should look like the screenshot below:

The screenshot shows the 'Advanced Search' interface. At the top is a blue header with the text 'Advanced Search'. Below the header, there are instructions: '\* % For wildcard searching' and '\_ For single character searching'. The 'Search Text' field contains 'Tri-Vit with Fluoride'. Under 'Search Type:', there are three checkboxes: 'Orthographic' (checked), 'Phonetic' (checked), and 'Text\*' (unchecked). Below these are 'Reset' and 'Submit' buttons. Under the heading 'Other Datasources:', there is a table with three columns: 'Datasource', 'Date Updated', and 'Product Count'. The table has two rows: 'Drugs At FDA' with a date of '09-26-2014' and a count of '6,485', and 'RxNorm' with a date of '09-09-2014' and a count of '26,321'. Each row has a checked checkbox in the first column.

	Datasource	Date Updated	Product Count
<input checked="" type="checkbox"/>	Drugs At FDA	09-26-2014	6,485
<input checked="" type="checkbox"/>	RxNorm	09-09-2014	26,321

Figure 64: Search Criteria

4. Click 'Submit'

The test search should provide the same total number of results as shown in Figure 65 below:

**Search Results**Search Term: *tri-vit with fluoride*[Add to Watch List](#)**Orthographic & Phonetic Matches** greater than 50%: Results 1 - 15 of 70

<input type="checkbox"/> Name of Concern	Match Percentage ↓	Datasource
<input type="checkbox"/> Tri-Vitamin with Fluoride	81	RxNorm
<input type="checkbox"/> yttrium fluoride	62	RxNorm
<input type="checkbox"/> TROSPIMUM CHLORIDE	61	Drugs At FDA
<input type="checkbox"/> rubidium chloride	59	RxNorm
<input type="checkbox"/> strontium chloride	59	RxNorm
<input type="checkbox"/> Stannous Fluoride	58	RxNorm
<input type="checkbox"/> Tri-Vi-Sol with Iron	58	RxNorm
<input type="checkbox"/> silver fluoride	58	RxNorm
<input type="checkbox"/> Phosphate Fluoride	57	RxNorm
<input type="checkbox"/> magnesium fluoride	56	RxNorm
<input type="checkbox"/> Sodium Fluoride	56	RxNorm
<input type="checkbox"/> Stop brand of fluoride	56	RxNorm
<input type="checkbox"/> Calcium Fluoride	56	RxNorm
<input type="checkbox"/> PRALIDOXIME CHLORIDE	56	Drugs At FDA
<input type="checkbox"/> PROTOPAM CHLORIDE	56	Drugs At FDA

[Page 1](#) [\[ 2 \]](#) [\[ 3 \]](#) [\[ 4 \]](#) [\[ 5 \]](#)**Phonetic Matches** greater than 50%: Results 1 - 15 of 57

<input type="checkbox"/> Name of Concern	Match Percentage ↓	Datasource
<input type="checkbox"/> Tri-Vitamin with Fluoride	74	RxNorm
<input type="checkbox"/> TROSPIMUM CHLORIDE	64	Drugs At FDA
<input type="checkbox"/> Stannous Fluoride	63	RxNorm
<input type="checkbox"/> chromous chloride	63	RxNorm
<input type="checkbox"/> PROTOPAM CHLORIDE	62	Drugs At FDA
<input type="checkbox"/> Phosphate Fluoride	61	RxNorm
<input type="checkbox"/> cobaltous chloride	61	RxNorm
<input type="checkbox"/> strontium chloride	61	RxNorm
<input type="checkbox"/> TRIDECYL STEARATE	60	RxNorm
<input type="checkbox"/> EDROPHONIUM CHLORIDE	60	Drugs At FDA
<input type="checkbox"/> rubidium chloride	60	RxNorm
<input type="checkbox"/> magnesium fluoride	58	RxNorm
<input type="checkbox"/> Oxybutynin Chloride	58	Drugs At FDA
<input type="checkbox"/> OXYBUTYNIN CHLORIDE	58	Drugs At FDA
<input type="checkbox"/> tridecyl salicylate	58	RxNorm

[Page 1](#) [\[ 2 \]](#) [\[ 3 \]](#) [\[ 4 \]](#)**Orthographic Matches** greater than 50%: Results 1 - 15 of 143

<input type="checkbox"/> Name of Concern	Match Percentage ↓	Datasource
<input type="checkbox"/> Tri-Vitamin with Fluoride	88	RxNorm
<input type="checkbox"/> yttrium fluoride	66	RxNorm
<input type="checkbox"/> Trifluridine	64	RxNorm
<input type="checkbox"/> TRIFLURIDINE	64	Drugs At FDA
<input type="checkbox"/> teriflunomide	62	RxNorm
<input type="checkbox"/> MVC-Fluoride	61	RxNorm
<input type="checkbox"/> Tri-Vi-Sol with Iron	61	RxNorm
<input type="checkbox"/> silver fluoride	60	RxNorm
<input type="checkbox"/> Biotene Dry Mouth Fluoride	59	RxNorm
<input type="checkbox"/> Trifluoperazine	59	RxNorm
<input type="checkbox"/> tribenoside	58	RxNorm
<input type="checkbox"/> TRIPROLIDINE HYDROCHLORIDE	58	Drugs At FDA
<input type="checkbox"/> Trifluoperidol	58	RxNorm
<input type="checkbox"/> triethylamine	58	RxNorm
<input type="checkbox"/> TROSPIMUM CHLORIDE	58	Drugs At FDA

[Page 1](#) [\[ 2 \]](#) [\[ 3 \]](#) [\[ 4 \]](#) [\[ 5 \]](#) [\[ 6 \]](#) [\[ 7 \]](#) [\[ 8 \]](#) [\[ 9 \]](#) [\[ 10 \]](#)

Figure 65: Search Results

Please note after verifying successful installation of the POCA application, users need to refresh the datasources to ensure they are searching the most up to date versions of Drugs@FDA and RXNorm. Please refer to 'Data Load Setup' on page 42 of the installation guide for instructions on performing monthly data refreshes.

## 5. Additional Notes:

- The POCA Installation directory also contains the folder “Poca\_Source\_Code” that contains the source codes for not only the main POCA application but for all of its dependent projects. If you wish to update these code sets then you can just copy this folder to your development system and open the “WebApp.sln” file in Visual Studio 2010.